PPC103

SUSTAINABILITY SPECIAL

BPCA British Pest Control Association

PROFESSIONAL PEST CONTROLLER MAY 2021

THE JOURNAL OF THE UK PEST MANAGEMENT COMMUNITY

CPD

ISSN 2046-5025

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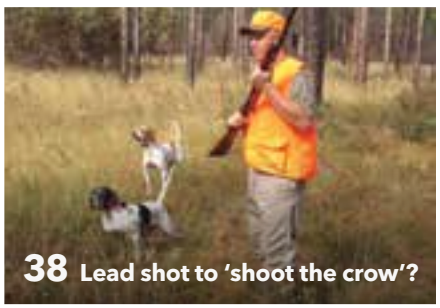

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CPD

BPCA Registered CPD points
Online CPD quiz = 1 point each
bpca.org.uk/cpd-area
Remember to log anything else you've learned in your CPD diary for even more points.

Basis Prompt
Reading PPC mag = 2 points
Online CPD quiz = 1 point each
bpca.org.uk/cpd-quiz

BUILD BACK BETTER

I happen to be writing this on 'Pub-mas Eve', the night before beer gardens and non-essential shops are set to reopen in England. The cautious optimism and gentle apprehensions of the sector and nation certainly match my feelings.

Every step that we get closer to 'normality' is reassuring for our businesses, yet there's that unsettling sense of déjà vu; we've been here before and had to backtrack as the infamous R rate crept back up.

It's been said plenty of times by plenty of people, but I'll repeat it for posterity: we're not out of the woods yet. Every business owner, technician and team member can play their part by keeping their pest management Covid-secure. Our guidance is still available to anyone looking for a refresher **bpca.org.uk/covid-19**

Some of you may have started returning to hospitality sites after contracts were paused or cancelled. Yesterday I saw a report of a local salon desperately trying to get some pigeon proofing done, so the line for hair cuts wasn't in the splatter zone. The problem must have been going on for weeks. Yet the proprietor had only thought to get the problem sorted the day before his salon was due to reopen!

Something we share as a sector is a wish for our clients to take a more proactive approach to their pest problems. We want to be valued more as an industry, and we want people to take our recommendations seriously.

You've probably heard the phrase 'build back better' bandied around a lot by politicians (it's nearly as popular as 'extraordinary times').

That's certainly the approach BPCA is taking. We've spent over 12 months reacting and adapting. Now we can see some light at the end of the tunnel - we're trying to put our lessons learned into practice.

How best can we support members' businesses and assure their clients they're fit for the fight? We've gone back to the drawing board to rethink how member assessments can provide members with better value.

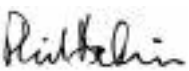
How can we take the best bits of PestExtra and put them into our physical events? How do we continue to develop cyber pest management training to give the sector better access to CPD? We want our training and events to be accessible to as many people as possible, and we're committed to embracing technology to make that happen.

How do we keep pest management on the public health agenda on the other side of the pandemic? Pest control has had its share of stage time during the pandemic, undoubtedly down to BPCA's public relations and lobbying efforts. Our fight for key worker status, our 'pest ready' guide for businesses, and our watching brief on the explosion of rodent pest numbers have all kept us in the public consciousness. Let's not stop now.

Maybe now is our opportunity for us all to 'build back better'.

As sites reopen (again), perhaps we should take extra time to talk through pest prevention recommendations; spend those additional few minutes talking about the risks to public health and safety that pest issues can cause. Maybe when we're in the beer garden catching up with non-pestie friends, we should take time to explain what we do – and, more importantly, why.

It takes a thousand tiny rebellions to make a change. If we want to be valued as the essential sector we are, let's start as we mean to go on.



Philip Halpin
BPCA President
president@bpca.org.uk

LETTER TO THE EDITOR RE: 'LET'S BAN GLUE BOARDS' ARTICLE

Dear Editor,

I read Chris Cagienard's piece on glue boards with interest. There is an interesting juxtaposition between the Irish ban and the author's aspirational thoughts. By way of background, the IPCA came into being in 2001 with the assistance of the BPCA and with support from Mr Richard Strand and our much missed friend, Jonathan Peck. In 2004, in response to a PMQ, a statement was read into the House that the Irish Wildlife Act 1976 included within it a total ban on the sale, supply and use of glue boards. This came as a complete surprise to our fledgling association as glue boards were readily available and in constant use in Ireland.

Our members insisted that IPCA lobby for their professional use and Richard Strand helped prepare a Code of Professional Conduct for the use of glue boards as a solution of last resort. Shortly thereafter, as President of IPCA, I met with Government representatives to appeal for their use in such limited circumstances.

> "...a deeply entrenched government department which was simply not prepared to engage."

A cogent argument complete with test cases was carefully prepared ahead of our battle. We also sought Senior Counsel's opinion and an interpretation of the 1976 Act. However, we never expected to be confronted with such a deeply entrenched government department which was simply not prepared to engage. Moreover, the department issued a directive to Irish EHOs to seek out glue boards in retail outlets and elsewhere and issue penalties to the full extent of the law. That was 2004. It's now 2021 and, withdrawal symptoms notwithstanding, our industry has survived perfectly well without them.

There may be an inherent risk in seeking the UK authorities to limit the sale and supply of glue boards as advocated by Chris in his opinion piece, ie by bringing forth the issue front and centre, you place on the table the prospect of a total ban.

I look forward to reading more on the matter.

Sincerely,
Brendan Ryan
Managing Director, Pestfree.ie, Dublin
Founder Member – Irish Pest Control Association

Want to see your letter here?
Send us your thoughts
hello@bpca.org.uk

LEAVING THE VAN AT HOME

Deborah, from member company Des Bone, was out riding with a friend when she took a work call which she needed to go to quickly. Luckily, she was actually just in the right location.

Ann Bone explained: "Deborah asked if the customer minded her arriving on her horse! Deborah and her horse 'Forest' were able to sort out the problem, with all Covid precautions taken. The customer loved the horses and Deborah was able to finish her ride without having to go into the office and get her company van".

AN ALBINO COCKROACH?

Look at what Wade Environmental found in its breeding cultures! An albino cockroach!

Or is it? Alex Wade said: "If you work with enough pest insects for long enough, you will eventually come across one of these 'albinos', only they're not really albinos at all.

"This is what happens when an insect moults its cuticle in order to grow.

"But, how do you get a new larger insect from the inside of a smaller old exoskeleton? Well this is where the weird change of colour comes into play.

"The new exoskeleton is incredibly soft and porous by design. It means that for the first couple of hours after it emerges, it is able to 'pump' air and water into its spongy exoskeleton and, to all intents and purposes, inflate it!

"As the insect undergoes this process the exoskeleton will slowly harden, going from a brilliant white albino, through increasing shades of whatever the final colour of the insect will be."

If you want to know more about insect behaviour and biology, and how this relates to pest control, Alex runs several courses with BPCA.
bpca.org.uk/training

SEND US YOUR SNAPS

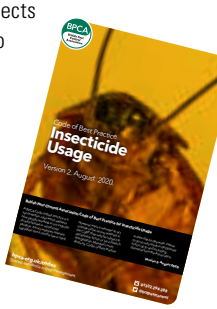
LIVING WITH BEES

Alan Dutton, from BPCA member company Chores Hygiene Management, sent us some interesting photos of his approach to some bees during a job.

Alan said, "As an FM company we carry out additional works other than pest control. On this occasion we were installing some facia boards to a property in Mablethorpe, Lincolnshire where bumble bees were nesting. We didn't want to kill them and didn't have the means to move them. We fitted the facia and made a doorway for the bees. Happy customers. Happy flowers!"

NEW CODE OF BEST PRACTICE: INSECTICIDE USAGE

The new Code is intended to outline the legal requirements of insecticide use, as well as the best professional practice that BPCA expects its members to observe.



Complying with Codes of Best Practice is a requirement for member companies.
bpca.org.uk/codes

BPCA GETS POST-BREXIT BIOCIDE FUMIGANTS REGISTRATION EXTENSION

BPCA wrote to the Health and Safety Executive (HSE) to ask for reconsideration of its approach to biocidal product reviews, after the Association's Fumigation and Controlled Environments (FaCE) group raised concerns for the future of some key fumigants.

HSE has now replied, telling us they have extended the registration of one product and indicated they may be extending others closer to their products reviews.

While HSE's decision does ensure continued access to these products, BPCA still has concerns about the long term impacts of UK biocide regulation post-Brexit.

We'll be keeping a close eye on how things develop and doing our best to protect pest professional's toolkits.

BPCA LIFE MEMBERSHIP AWARDED TO CRRU CHAIRMAN ALAN BUCKLE

Dr Alan Buckle was the deserving recipient of the BPCA Life Membership award at the AGM on 26 March 2021.

BPCA President Phil Halpin said: "Life Membership is the highest award available to recognise the enormous contribution of individuals to the Association and the pest management industry.

"It is therefore only awarded by the BPCA Executive Board in exceptional circumstances and I think we can all agree that Dr Buckle's work for the industry has been exceptional.

"Without his work and international influence our lives as pest control contractors would be very much harder and our environments and wildlife far worse off.

"We're delighted to award him with BPCA Life Membership, a truly well-deserved honour."

For the rest of the Awards winners, see page 41. Watch Dr Buckle receive his award at the AGM **youtube.com/bpcavideo**

BPCA HOLDS 79TH ANNUAL GENERAL MEETING – VIRTUALLY

The British Pest Control Association's 2021 AGM has been held online alongside the BPCA member awards.

Led by BPCA President Philip Halpin, the meeting was streamed live online from BPCA's offices.

All resolutions, including accepting the annual report and accounts, passed.

The two BPCA Board members who were up for election by rotation were re-elected to the BPCA Board without a vote as their nominations were uncontested.

As such, the BPCA Executive Board remains unchanged:

PRESIDENT Philip Halpin
(Countrywide Environmental Services Ltd)

VICE PRESIDENT Mike Ayers (Precision Pest Management)

VICE PRESIDENT Chris Cagienard (Pest Solutions)

HONORARY TREASURER Mark Williams (Ecolab)

SERVICING COMMITTEE CHAIR Martin Rose-King (Bounty Pest Control)

MANUFACTURERS AND DISTRIBUTORS COMMITTEE CHAIR (INTERIM) Martin Rose-King (Bounty Pest Control)

PROFESSIONAL STANDARDS COMMITTEE CHAIR Malcolm Stowell (Safeguard Pest Control and Environmental Services)

OUTREACH AND COMMUNICATIONS COMMITTEE CHAIR Julia Pittman (Beaver House Services)

EXECUTIVE BOARD MEMBERS

Jason Cholerton (CSS Pest Services)
Chris Corbett (Aderyn)
Mick Kilburn (Elite Pest Management)
Michael Taylor (Contego)
Paul Westgate (Veritas Pest Consultancy)
Mark White (Dealey)

As well as Philip Halpin's annual report, BPCA Honorary Treasurer Mark Williams and several BPCA committee chairs gave prerecorded reports detailing all the Association achieved in 2020.

It is now available to watch in full **youtube.com/bpcavideo**

POSTPONEMENT OF APPROVAL EXPIRY DATES FOR RENEWALS OF EIGHT ACTIVE SUBSTANCES

HSE has agreed a postponement of the approval expiry dates for eight active substances which were due to lapse within the next six months.

Under the GB Biocidal Products Regulation, where for reasons beyond the control of the applicant, the approval of the active substance is likely to expire before a decision has been taken on its renewal, the Secretary of State with the consent of Ministers in Scotland and Wales can issue a decision postponing the expiry date of approval for a period sufficient to enable the competent authority to examine the application.

Under these arrangements, the approval expiry dates for the following active substances have been postponed until 24 July 2023:

- Propiconazole
- Metofluthrin
- Sulfuryl fluoride
- Alphachloralose
- Sulfuryl fluoride
- Aluminium phosphide releasing phosphine
- Boric acid
- Disodium tetraborate pentahydrate.

The GB List of Active Substances will be updated to reflect this decision and there are no further changes in the approvals.

SCOTTISH ANIMAL WELFARE COMMISSION RECOMMENDS THE BAN OF RODENT GLUE BOARDS

In its March 2021 report, the Scottish Animal Welfare Commission (SAWC) has made its recommendations on the future of glue boards to ministers.

The report considers the animal welfare issues surrounding the use of glue traps to control rodents in Scotland and makes recommendations regarding potential regulation.

The report states: "The Commission believes that the animal welfare issues connected with the use of glue traps would justify an immediate outright ban on their sale and use. This is our preferred recommendation."

The Commission acknowledged that the professional pest management sector has significant concerns that no alternatives to rodent glue boards exist for certain niche public health situations.

BPCA reflect on the report

Head of Technical and Membership Dee Ward-Thompson has scrutinised the report in detail. She said: "The findings of the SAWC's report are not unexpected. However, it is disappointing that the commission doesn't fully understand the public health implications of banning glue boards entirely.

"We've provided clear examples of where no other options exist to protect human health, such as in particularly sensitive sites where quick-control is essential.

"We have concerns that licensing the use of glue boards on a case-by-case basis may lead to delays which will impact both the physical and mental welfare of people.

"When mice are found in an intensive care unit, or rats get access to wiring in a power station, every second counts.

"We've always been in support of a ban for untrained amateur users of glue boards. However, we believe that decisions should be in the hands of trained professionals making judgements based on public-health risks and the known limitations of any alternatives, rather than government administrators.

"We'll be writing again to SAWC and the Scottish ministers to make sure that argument around the humaneness of rodent control is balanced with the public health risks."

BROWN MARMORATED STINK BUG SPOTTED IN UK

In February, the brown marmorated stink bug (Halyomorpha halys) was officially reported as active in the UK, prompting calls for pest controllers to keep an eye out and report any sightings.

The bug is native to China, Japan and other Asian regions, but has invaded the US and parts of Europe in recent decades. Now, experts at the Natural History Museum have confirmed three sightings in London, Essex and Suffolk.

"Its arrival in the UK has been predicted for several years," says Clive Boase, entomologist and Principal Consultant at The Pest Management Consultancy.

Clive says that the brown marmorated stink bug (BMSB) is broadly similar in general appearance to our native shield bug.

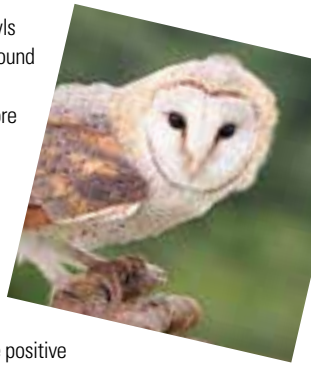
Adults measure 12-17mm long, and are a mottled brown colour. They are very similar to our native hairy shield bug, but the BMSB has only two pale bands on its antennae, while the hairy shield bug has three.

Additionally, the BMSB has transverse rows of pale dots across the edges of the scutellum (plate covering the thorax) which are lacking in the hairy shield bug.

The Natural History Museum is calling on anyone who thinks they may have spotted a stink bug to post it on the Museum's Facebook group for identification.

You could also report it to the Non-Native Species Secretariat (NNSS) **nnss@apha.gov.uk**

STATIC RODENTICIDE RESIDUES IN BARN OWL SURVEILLANCE



Two-thirds of barn owls analysed have been found with detectable liver residues of two or more second generation anticoagulant rodenticides (SGARs), says Campaign for Responsible Rodenticide Use (CRRU).

Another 21% were positive for one SGAR in this CRRU surveillance. The highest frequency detections were of bromadiolone, difenacoum and brodifacoum.

For the first time in four years since CRRU began annual reporting of SGAR residues in barn owls', one specimen was identified where SGAR exposure was a possible contributor to the cause of death.

Of 100-a-year analysed, the other 399 had died mainly from either road traffic trauma or starvation.

Compared with a 2006-2012 benchmark, several years before the CRRU-operated UK Rodenticide Stewardship Regime was established, these latest results show no significant rise nor fall in total SGAR residues.

Moreover, the latest analysis was of birds that died during only the second year of fully operational rodenticide stewardship controls.

Even so, the results come at a sensitive time, according to CRRU chairman Dr Alan Buckle. The stewardship regime will be reviewed formally by its HSE-led Government Oversight Group during the next two to three months.

Liver analyses and data reports are carried out independently for CRRU by the UK Centre for Ecology and Hydrology, Lancaster.

The report is available at **thinkwildlife.org/downloads/**

KILLGERM UNVEILS NEW WILDLIFE CONSCIOUS RAT BAIT BOX

The AF® Amicus is a new species-specific bait station for Norway rat control from BPCA member Killgerm Chemicals.

It precludes entry by bank voles and wood mice, while still allowing access for Norway rats (Rattus norvegicus).

The unique downward facing tubes naturally attract rats and allow them to climb up into the box, giving access to the rodenticides or traps inside. In testing AF® Amicus was not entered by non-target species such as wood mice and bank voles. Slugs and snails also have not been observed to enter, therefore preventing rodenticide damage.

Iain Urquhart of BPCA member company Advanced Pest Management, which created the AF® Amicus, commented, "The design of conventional bait stations allowed for non-target animals to gain access to rodenticide baits. Something had to be done. So, it all started in June 2012 when the expression 'rat up a drainpipe' kept on being repeated in my head. It gave me an idea.

"I doodled with a conventional bait station, bringing it up off the ground, and the idea struck me of placing a pipe up into the box. I drew up some plans and had my brother-in-law make up a box with two tubes suspended from the box.

"I experimented with the bait station, enlisting the help of a researcher and an independent testing facility, over a period of four months. We came up with a design that allowed for rats, of eight weeks of age and above (adults), to gain access to the box but at the same time precluded mice from entry.

"I have to admit that the fact that no snails managed to gain access to the bait stations, once tested in the field, was just an added bonus."

killgerm.com

ASSASSIN BUGS BOOK SERIES HITS UK

Los Angeles-based author Bill Fitzhugh published his 'Assassin Bugs' series in the UK last month.

The series has two books, Pest Control and The Exterminators, crime thrillers in which pest controller Bob Dillon gets caught up in a dark world of assassination plots in New York City.

You can also download and read a short story by the same author for free at **farragobooks.com/billfitzhugh-signup**

While it doesn't follow the pest controller protagonist of the full length novels, The Bug Job is a fun, inventive read and will give you a peek at what to expect from the Assassin Bugs series.

For more information visit **farragobooks.com/book-series/assassin-bugs**

Want to be a PPC pest fiction reviewer?
Send us your review and we might feature it here.
hello@bpca.org.uk

SCHENDEL'S PRIORITISES SUSTAINABILITY WITH NEW ENVIRONMENTAL CREDENTIALS

The Director of BPCA member Schendel's Independent Environmental Solutions has demonstrated a clear commitment towards protecting the environment by gaining full membership of the Institute of Environmental Sciences.

Philip Schendel is working his way through the IEMA Certificate to improve the company's environmental credentials further.

Philip said: "The environmental protection sector has always interested me. Joining the Institute of Environmental Sciences has helped me to gain a deeper understanding of the interconnectedness of the environment and appreciate why we all need to be more sustainable as the population of the planet grows. The wealth of relevant information that the Institute offers is extremely valuable in strategic planning for now and the future."

There are various grades at which new members can join depending on qualifications and experience; most pest management professionals can demonstrate the use of a 'science-based' approach to their role.

Philip continued "I would highly recommend joining the Institute to anyone interested in improving their competencies and expanding their environmental credentials."

We asked Philip if he had any tips that technicians or business owners could take to reduce impact on the environment. He gave us four suggestions:

1 TRY USING 'SPECIES SPECIFIC' RAT TRAP/BAIT STATIONS EXTERNALLY
We have not yet identified any slug, snail, frog, bird, wood mouse or other non-target activity inside. A definite thumbs-up from us, and opportunities created for proofing where non-target species are identified. This action can help to reduce localised secondary poisoning to hedgehogs, owls and other non-target wildlife.

2 EMBRACE TECHNOLOGY
It's not going away anytime soon, and when you discover how much time and fuel you can save by using (for example, remote monitoring) you'll quickly see the benefits to your company and the environment.

3 CHECK FOR RESISTANCE TO ANTICOAGULANTS IF DEALING WITH RODENT PESTS
We as professionals all should know where to look for this extremely valuable and essential information; there are no excuses!

4 BE A LIFE-LONG LEARNER
A deeper understanding of our environment can help prepare us for the future. Climate change is a driver for invasive species movement and geographical changes to our environment. This can create opportunities for those with the right competencies and sustainability objectives.

BPCA SHORTLISTED IN AWARDS

BPCA has been shortlisted in three different categories at the Association Excellence Awards (AEA), which recognise and celebrate the work that associations, trade organisations, unions and industry bodies do for and on behalf of members.

Shortlisted categories:

- Best Lobbying Campaign or Advancement of a Cause During Covid-19 (over 500 members)
- Best Membership Support During Covid-19 (under 800 members)
- Best Online Learning and Professional Development Programme.

The winners will be announced at the awards ceremony taking place in London on 29 June.

Ian Andrew, BPCA Chief Executive, commented: "We're thrilled that BPCA has won these nominations following a tough year, during which the BPCA Staff team worked tirelessly under difficult circumstances to support our members and the UK's pest management sector.

"The nominations highlight the different threads of support we provide the industry, from lobbying efforts to increased provisions in online training, and I'm immeasurably proud of the work we've done during the Covid-19 pandemic."

CLEANKILL'S GOLD RENEWAL PROVES DEDICATION TO STAFF

Cleankill Pest Control is celebrating after retaining its Investors in People Gold Award gold accreditation.

Gold accreditation demonstrates that Cleankill has a full range of important policies in place and that everyone in the company takes ownership for making them happen.

Only 17% of the Investors in People accredited organisations achieve gold. In 2018 Cleankill became the first pest control company in England to be certified gold by Investors in People and in 2021, following another intensive audit, retained the gold status.

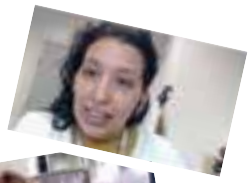
Commenting on the award, Paul said: "We believe that the success of our organisation begins and ends with our people. If we make work better for everyone, we make work better for our customers."

DELEGATES REUNITED IN FIRST ICUP WEBINAR

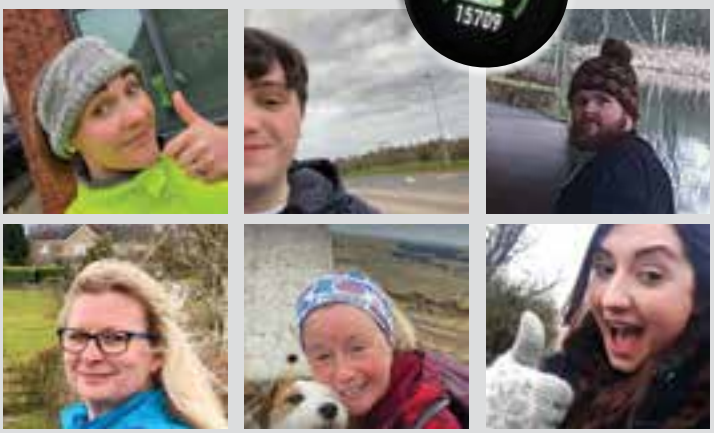
Unable to meet face-to-face, nearly 500 members, representing over 50 countries, of the International Conference on Urban Pests (ICUP) community met up on-line for the first ICUP webinar held on 9 March 2021.

From over 130 papers offered for presentation at the postponed Barcelona conference, five were selected for presentation at this webinar, with the possibility of additional papers to be presented at a further webinar.

As to be expected, Bill Robinson and Clive Boase, of the ICUP Executive Committee, have both been closely involved with organising this first webinar. They commented: "We are really pleased with the content and attendance of this debut webinar. We're seriously considering further virtual events, to maintain the spirit of the ICUP community until we can meet again face-to-face."



BPCA MARCHES THE MONTH



Throughout March, the BPCA Staff team walked 11,000 steps a day each to raise money for Prostate Cancer UK.

The 11,000 steps per day represents more than 11,000 dads, partners, grandads, sons, brothers, uncles and mates who die from prostate cancer every year. Together they raised over £2,000 for the charity, which was chosen by BPCA's Twitter followers last year.

Most steps in one day:
43,297 (Lorraine)

Highest average step count:
18,650 (Ian)

Total steps by BPCA team:
5,363,737

If you'd like to donate, there's still time **bpca.org.uk/donate**

RRAG APPOINTS NEW CHAIRPERSON

Dr Matthew Davies takes over as Rodenticide Resistance Action Group (RRAG) chair, as Dr Alan Buckle steps down after more than ten years in the role.

Alan remains as a member of the group and will assist the new chair while responsibilities are handed over.

Alan commented, "The RRAG has been an important responsibility for me over the years. We have more anticoagulant resistance in the UK than anywhere else, so it is important to provide good advice to practitioners.

"I am proud of the big advances we have made in resistance mapping. I would like to thank the members of RRAG for their help and support over the years and wish the new Chairman, Matthew Davies, all the best in his new role."

Matthew commented, "The issue of anticoagulant resistance is absolutely not going away. It is extremely important, now more than ever, to follow resistance management strategies and achieve effective rodent control."

RRAG is an independent group consisting of representatives from universities, government agencies and all sectors of the pest control industry, with expertise in rodenticide resistance.

It was formed to provide information on resistance and resistance management strategies for professional pest control practitioners, regulatory authorities, local authorities and UK farmers and growers.

BPCA PestExtra

FIRST EVER!

The pest management show online

Trying something new is always nerve-racking. However, the BPCA team is nothing if not adaptable. When Covid-19 cancelled international shows, the Association pivoted its usual PestEx event; determined that pest professionals should be able to connect, share and learn together. On the 16-18 March 2021, BPCA held the biggest online gathering of UK pest professionals in the UK. Here's how it went.

Over three days, 1,780 visitors attended PestExtra from around the world. Completely free to participate in, PestExtra combined an action-packed conference schedule with a digital trade show.

Accessible through an internet browser, PestExtra was designed with the spirit of its parent show - PestEx, the largest pest management show in the UK.

Feedback was better than we could've hoped. One of the attendees captured the atmosphere perfectly, saying: "It's incredible that we got to attend something like PestEx in these times where it's impossible to move around in the real world. It's good that you could review items on-demand – especially when you'd like to be in two places at the same time to see it all!

"The informal atmosphere when Q&As were conducted after a speaker made you feel a part of it. These things often become very high-level and thereby lose technicians and new persons in the business - but PestExtra was different.

"Another good thing was the different time slots during the three days, which made it possible to take care of other things at 'open hours'. Thanks to all at BPCA for the effort."

"I thought PestExtra was really good. I managed to watch around 12 hours of seminars! I thought the virtual meeting worked well, and all who contributed should be congratulated on a great effort to pull that off."

Too much to see?

Between five seminar theatres and 46 exhibitors, we did have to put our hands up and admit that there was probably too much to do at PestExtra. That being said, visitors certainly made the most of their time. One visitor's feedback read: "I think PestExtra really captured the feeling of the real PestEx events as well as an online event could! I thought the exhibitor stands (especially the ones with a virtual interactive stand that you could explore) were very good.

"The seminars and lectures were the best things by a long way. I actually enjoyed the research talks so much that I now think I'm more of a nerd than I realised."

Thankfully, many of the presenters generously let us post their talks on the BPCA website.

There's a huge amount of PestExtra content available at **bpca.org.uk/cpd-videos**

Innovations everywhere

Across the virtual trade hall and in the innovation theatre, it was clear that manufacturers of pest products have been extra busy in the R&D departments.

MOST ATTENDED SEMINARS

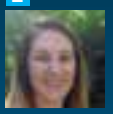
=1

Bird mites: environmentally tricky, socially misunderstood, technically still challenging
Professor Olivier Sparagano

=1

Introducing Selontra® – our latest innovation, cholecalciferol rodent bait
Sharon Hughes and Helen Ainsworth

2



Novel mosquito control techniques to combat mosquito-borne infections
Dr Claire Donald

3

A modern rat's tale: Dutch experiences with rodenticide reduction
Dr Bastiaan Meerburg

4

Textile pests: a proactive approach to control
Avril Turner

5

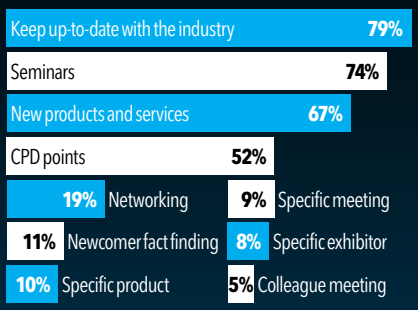
Pest trending – using data to help drive pest control solutions
Paul Westgate

All except (4) available to view at **bpca.org.uk/cpd-videos**

Good or excellent ratings received

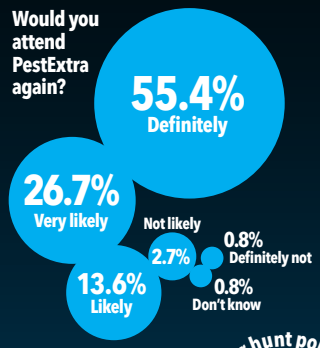
93%	98%	99%	96%	90%	98%	87%	91%	84%
General atmosphere	Quality of seminars	BPCA stand	Exhibitor range	Ease of navigation	Staff helpfulness	Scavenger hunt	On-demand area	Networking lounge

Reasons for attendance



Visitor role in buying process

Would you attend PestExtra again?



CPD points issued 5,319

Seminar sessions watched 11,087 LIVE; 3,301 ON-DEMAND

Scavenger hunt points earned 62.1 million

Did you find what you were looking for?

BASF's Selontra, with its unique cholecalciferol active, certainly drew a crowd. Appropriately, a digital pest management theme ran across the show with Bell Laboratories, Edialux, Bayer and ServiceTracker all showing off significant developments.

Environment and sustainability was another critical area of innovation. Killgerm's unusual looking bait box got its first outing at a UK trade show.

Edialux, Syngenta, Killgerm, Barrettine and Bayer had so much to show off that they created immersive virtual stands where you could interact with their various products, adding another level of interactivity.

What goes into a virtual event?

We were extremely fortunate with PPC Live 2020 in that we managed to run this safely and successfully the week before the UK shut down and a pandemic was declared.

Ever the optimists, we carried on with PestEx plans for March 2021 as much as we could.

When this dragged out over summer 2020, and online events popped up everywhere as the only option, we began to explore what a digital trade show would look like for us. Where do you even start?

- We popped into loads of online events and spoke to other event organisers in a similar situation
- We sat through numerous demonstrations with online platform providers
- We agonised over quotes and budgets to see if we could keep the event free to attend and affordable to exhibit at.

At the start of October 2020, we decided that we couldn't put it off any longer – PestEx wouldn't be going to ExCeL in 2021. With the backing of BPCA's Executive Board, PestExtra was given a green light.

Everyone wanted to see what it would look like. After all, it's hard to get people involved in something they don't fully understand. The queries were many: what will my stand look like? How many people will attend? What work do we need to put in? Will people talk to each other? What will PestExtra feel like?

If it felt like stepping into the unknown for you – just imagine what it was like for the BPCA team!

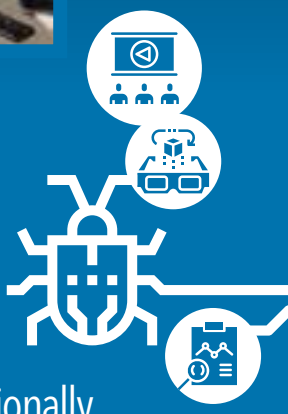
The pest community supported us. Exhibitors took a leap of faith with us, including many of our members. We'll always be thankful for that support. There would have been no PestExtra without them.

We learned how to use the software, set up studios and load mountains of content to all the stands – feeling our way as we went. Some presentations were recorded in advance and needed to be edited, optimised and often revised numerous times before making their way to the platform.

The mammoth seminar schedule was only possible because of our headline sponsors' support and the generous donation of time and expertise from our speakers. Going digital meant that we could invite friends of BPCA from around the world to speak, giving the show its unique atmosphere.

/continued...

Orchestrated and organised chaos behind the scenes at BPCA's 'broadcasting house'.



"PestExtra was professionally organised and astoundingly delivered. The quality of many presentations was of a high standard."

A snapshot of attendees from all over the globe.

"As a potential new entrant to the business, I found all the backend staff and exhibitors extremely open, helpful, and efficient. Top marks to all."

One nightmarish evening we noticed the links hadn't gone out to access the system for the exhibitor practice sessions. To make sure we got this fixed, our Events Manager Lauren Day set her alarm for 5am the next morning as that's when our New Zealand-based account manager would next be at his desk.

The platform providers were great, and not only fixed the notifications but taught us how to sort it ourselves to avoid another sleepless night. What a learning curve!

We filmed how-to videos (which used more takes than we care to admit), and the team called hundreds of BPCA member companies to make sure that they could attend the show. We tried everything we could to make sure people not only registered but attended!

Over the event, the whole BPCA staff team turned attentions to making it a success. A group of five set up base in the Covid-secure BPCA HQ. You've never seen so many screens in your life! It felt a bit like mission control at NASA and a BBC studio rolled into one.

The at-home team focused on handling the BPCA stand, moderating theatre sessions and generally networking with attendees.

A big thanks goes to everyone who took time to send us messages of support. It takes hundreds of hours of preparation to get something like PestExtra to happen - so thanks to everyone who participated.

Technical hiccups

PestExtra ran smoothly for the most part, but there are certainly challenges with digital events that only experience can prepare you for.

When you're not only relying on your own technology but also the devices of thousands of participants, the pressure is on! While the BPCA team managed to get 99% of the people that called for support into the event, some devices just wouldn't connect.

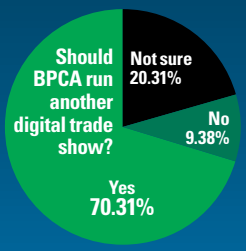
Many of the person-to-person video calls were inconsistent, and the software we used to connect nearly 2,000 people was certainly power-intensive.

Virtual events software is a fast-evolving sector in itself. It'll be exciting to see what else is possible in the next few years.

The only session that didn't go ahead as planned was Dr Nicola Gregg's talk on the future of biocide regulation. Sadly her internet connection gave out at entirely the wrong moment. We've since managed to record her session, so head to the BPCA website if you want to review it.

Digital or 'IRL' events?

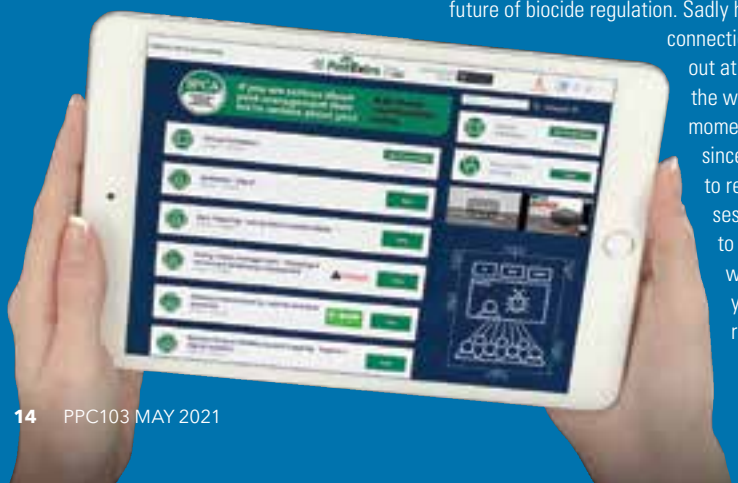
As we suspected, while people enjoyed PestExtra as a stopgap event, many are keen that 'in real life' events return as soon as possible.



PestEx will be back at ExCeL in London in March 2022 (Covid-permitting). Inevitably many of the lessons we've learned from PestExtra will trickle into PestEx over the coming years.

As a standalone digital event, will PestExtra return? Maybe, in some shape or form. Digital events are a considerable commitment, and at the moment the BPCA team is focusing on reopening physical events safely and continuing Digital Forum and webinar schedules.

Watch this (cyber)space!



Video wrap-up

A review of PestExtra – the pest management show online.

youtu.be/zf-4xQYGdW0

BPCA EMAIL technical@bpca.org.uk

INBOX
SENT
ARCHIVE
BIN
SPAM

ASK THE TECHNICAL TEAM

GREEN SPECIAL "Once you start looking at all the things you use in your day-to-day business, you might be surprised by how many of them you can find green solutions for."

Subject: Plastics

So many pest control products come in plastic packaging. How can we minimise plastic waste?

This is a challenge for every business and in some respects it's not a sole person's or business's responsibility – we all need to contribute.

Legislators are scrutinising things like the packaging of the products you buy, and we may see a reduction in this soon.

It's always worth having a chat with your suppliers to ascertain their views on plastic waste.

Identify all the products you use, from plastic bait boxes to disposable coffee cups in the office, and ask yourself some questions. Do I need to use this particular item at all? If yes, is it currently recyclable or reusable? No? Then is there an alternative to the product I currently use which produces less waste or can be recycled?

Do you leave plastic bait boxes behind when a contract or job runs its course? Why? These are highly durable pieces of kit when looked after properly, so reuse them where you can.

Once you start looking at all the things you use in your day-to-day business, you might be surprised by how many of them you can find green solutions for.

Subject: Recycling collections

I have a small business, working from home. Can I use my cardboard and plastic bins outside my house?

Any business waste or recycling has to be disposed of via a commercial waste contractor that you pay for. Imagine all UK businesses decided to take their waste and recycling home; there would be chaos!

Reduce all the waste you can. Recycle within your business as much as you can. Then, use a contractor for whatever is left.

Subject: Carbon 'tyre-print'

I want to cut down my company's carbon footprint, but we have pest techs driving around in vans all day. How can we do this?

The first task is to get an environmental policy written up.

This process in itself will help you formulate some plan. If you're a BPCA member, you will have access to BusinessShield, where you can download a whole lot of guidance and templates for this.

Then, you need to look at what you do; what you can cut down on? Set some targets. For example, if you have a fleet of vans, why not look at better route planning? Trackers are always good for this too, as you can be in more control of where your staff are and who is closest to a particular job, thus reducing travel and emissions.

If you can use public transport, consider this too (although perhaps wait to implement this until Covid restrictions are substantially lifted).

Subject: Eco ideas

How can we be greener?

There are many websites out there and environmental experts that can give you great support, so it is worth having a good look around.

Here's some small ideas that can help the whole team get involved in being just a bit greener:

- Get some more plants in your office or home to help 'clean' the air
- Encourage staff to be green (and market your business at the same time) by giving them branded water bottles to refill
- Take sandwiches to work? Why not use beeswax paper instead of cling film?
- Make it a selling point: let your customers know that your pest control work has eco-friendly goals, eg you use reusable traps, you spray fewer pesticides, etc.
- Social media nut? Blogging and encouraging others to do their part is always useful
- What about some and eco-friendly and ethically-sourced uniforms?
- Software investment can help reduce paper and those horrid plastic folders!

BPCA MEMBERS ONLY

Are you a BPCA member with a technical question? Get in touch...

technical@bpca.org.uk
01332 294 288
twitter.com/britpestcontrol

SPEED VIEW

What are your suppliers' views on plastic waste?

Any business waste or recycling has to be disposed of via a commercial waste contractor

If you have vans, think about route planning

Get the whole team involved in being a bit greener every day.

PESTWATCH

CLIMATE CHANGE PESTS

CRITICAL PEST SPECIES FOR THE NEXT 20 YEARS

As temperatures rise in the UK, Clive Boase, of The Pest Management Consultancy, looks at some of the invasive pests you might have to learn to manage in the future.

Is the invasion over yet?

Centuries ago, the job of a UK pest controller would have been much simpler. At that time, the majority of the pests that we now depend on for a living, such as rats, house mice, grey squirrels, rabbits, cockroaches, storage insects and tropical ants had not yet arrived in the UK. However, over the centuries, one by one, all these pests have gradually been introduced. As a result, UK pest control is now largely an ongoing campaign waged against invasive pest species.

These invasive species have a very wide range of impacts. Some damage buildings or infrastructure, some impact food production, some spread disease, while others attack or displace native wildlife.

Across the UK, looking at agriculture and forestry as well as pest control, invasive species are estimated to cost the UK a total of around £1.7billion per year.

"Across the UK, looking at agriculture and forestry as well as pest control, invasive species are estimated to cost the UK a total of around £1.7billion per year."

"In September 2016, Public Health England found tiger mosquitoes for the first time in the UK at motorway services in Kent."

Image: US CDC

Colouring	Black body with one white stripe down the back and silvery-white bands on legs and thorax.
Size	<10 mm
Habitat	Lay eggs in moist areas just above the water's surface, such as tyres, birdbaths, animal dishes and flower pots.
Behaviour	An aggressive biter that feeds throughout the day on a range of hosts including humans, pets and wild animals.
Life cycle	Egg, larva, pupa and adult. Asian tiger mosquitoes can lay up to 500 eggs in their lifetime. Adults are usually found near their breeding area. Eggs can survive in both dry and cold conditions.
Risk	Transmit pathogens and viruses, such as the yellow fever virus, dengue fever, Chikungunya fever and Usutu virus.

TIGER MOSQUITOES

The tiger mosquito (Aedes albopictus) is a small black-and-white, daytime biting insect. It is native to the Far East but was accidentally introduced to Europe in the used tyre trade in the 1970s. It has now spread through much of southern Europe and has been gradually pushing northwards.

Modelling has shown that southern England is suitable for this species. For several years, Public Health England has been running a network of mosquito detection points at UK ports and other locations.

These mosquitoes are largely urban and actively bite during the day. Where abundant, they can be a significant nuisance to people in their garden or sitting outside bars, cafes, parks etc. More seriously, they can also carry human diseases. They have been responsible for outbreaks of Chikungunya disease in, for example, France and Italy in recent years, with several human deaths.

When might they arrive?

In September 2016, Public Health England found tiger mosquitoes for the first time in the UK at motorway services in Kent. Larvicide treatments were applied, and fortunately, the mosquitoes were eliminated.

Since then, there has been a trickle of similarly unsuccessful incursions. However, the likelihood is that sooner or later, this mosquito will gain a toehold in the UK and then gradually spread, probably across urban or suburban areas, assisted by climate change.

Treatment: Are we prepared?

The short answer is no. You will almost certainly need additional training on key topics such as:

Identification

Tiger mosquitoes will need to be separated from the many other mosquito species that are present in the UK and which do not need to be controlled.

Understanding biology and habitats

Tiger mosquito larvae are usually found in small informal water bodies such as small drain sumps and water butts, not in larger ponds, lakes or marshes.

Mosquito surveying

Technicians will need to survey areas for mosquito breeding and separate mosquito larvae from other aquatic wildlife to decide which areas need treating.

Use of larvicides

The dosage and application of these (eg bacillus thuringiensis israelensis and silicone products) are very different from conventional residual sprays, so need to be fully understood.

Use of ULV insecticides

Again, ULV dosing and application is very different from conventional insecticide treatment. There is a lot of technology behind droplet sizes and mosquitoes and choosing the best time to treat.

"There is a continual risk of new introductions from southern Europe and beyond, with climate change making the UK ever more suitable for them."

Image: CC Filipe Fortes

Colouring	Creamy white to dark brown/ black, depending on species.
Size	<25 mm
Habitat and diet	Termites are detritivores, consuming dead plants at any level of decomposition.
Behaviour	All termites are social insects and raise their young as a group. Each termite colony is established and dominated by one queen and king.
Life cycle	Egg, nymph and adult stages. The queen produces thousands of eggs over her lifetime.
Risk	Each year, termites cause an estimated £3.7billion in property damage.

TERMITES

Termites are social insects, usually living in large underground nests containing thousands of insects and feeding almost entirely on dead wood. Several species occur in France and other European countries, with infestations spreading northwards in recent years. Termites are now widespread in Paris, and infestations are even being found close to the Channel coast.

The main impact is the potential for severe damage to structural timber in buildings.

They are a greater problem than timber beetles because the individual beetles at least leave exit holes that can be easily spotted, and remedial treatments then applied. Termites, by contrast, hollow out the timber from the inside, leaving an intact but thin layer of timber and paint on the surface.

It's not until the door frame suddenly crumbles away in the customer's hand that they realise they have a problem. UK buildings typically contain a lot of structural timber, so they are very vulnerable to attack.

When might they arrive?

In the UK termites are not native, but some were accidentally introduced from the Canary Islands to Devon in the 1990s, where they damaged timber in two houses. Despite an extensive and very expensive eradication programme, it is still not clear whether they have been eliminated.

There is a continual risk of new introductions from southern Europe and beyond, with climate change making the UK ever more suitable for them.

Treatment: are we prepared?

Again, no! Termite control will be very different from any other form of UK pest control. Detailed training will be required on:

Termite surveys

An important part of termite control. Visual inspections, audio detection devices, and even detector dogs can be used. A detailed understanding of building construction is required.

Soil drenches

High volume insecticide treatments, typically injected around the footings of buildings. Powerful drills and large capacity pumps are typically required.

Termite baiting

A technique which has replaced some soil treatment. Perforated plastic cylinders are inserted into the ground around the building. They initially contain a non-toxic monitoring bait. If termites are detected, this is replaced with slow-acting toxic bait – termites take this back to the nest, where it eliminates the whole colony.

What should we cover next?

Got a suggestion for an in-depth PestWatch feature? Suggest it now!
hello@bpca.org.uk

Pest calendar

PROBLEM MAJOR PROBLEM

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ants			P	P	P	P	M	P				
Bed bugs	P	P	P	P	P	P	P	P	P	P	P	P
Birds	P	P	P	M	M	M	M	M		P	P	P
Bluebottles					P	P	P	M	P			
Carpet beetles				P	M	P		P	M	P		
Clothes moths	P	P	P	P	P	P	P	P	P		P	P
Cockroaches	P	P	P	P	P	P	P	P	P	P	P	P
Deathwatch beetles emerge					M	M	P					
Fleas					P	P	P	P	M	M		
Foxes	M	M	M	M	M	P	P	P	P	P	P	P
Fur beetles				M	M				P	P		
Harvest mites							P	P	M			
Head lice	P	P	P	P	P	P	P	P	P	P	P	P
House flies				P	P	M	M	P	P			
May bugs					M	P						
Mice	M	M	P	P	P	P	P	P	P	P	M	M
Mosquitoes			P	P	P	P	P	P	P	P	P	
Moths	P	P	P	P	M	M	M	M	M	P	P	P
Rats	M	M	P	P	P	P	P	P	P	P	M	M
Red spider mites				P	M	P	P	M	P			
Spiders									P	M	P	P
Squirrels	M	M	M	P	P	P	P	P	P	M	M	M
Wasps							P	M	P	P		
Wood rot	P	P	P	P	P	P	P	P	P	P	P	P
Woodworm					P	P	M	P	P			

CASE STUDIES

Climate conditions clear the way for mosquitoes in the UK

Spring marks the start of the flying insect season in the UK and current weather patterns could see numbers soar. The UK is home to more than 30 types of native mosquito species, with the most common species indoors, often misidentified as a gnat, being Culex pipiens. It does not bite but is almost indistinguishable from Culex molestus, which does.

BPCA is particularly concerned about one type of invasive species – the Asian Tiger mosquito. The eggs and larvae of this mosquito variety have already been discovered in two sites in the south-east of England in 2016 and 2017.

Termites in the Midlands?

BPCA member, CSS Pest Services, identified a small colony, initially thought to contain up to 30 termites, during a routine inspection in a reptile house.

After seeking confirmation, the termites were identified as Kalotermitidae, commonly known as 'drywood termite'.

After notifying the non-native species secretariat, Jason Cholerton of CSS Services said: "We think they might have been brought in via timber that was imported about a year ago as that's how long we think they've been active for."

The client later confirmed that the timber had been in tanks for 18 months and had been purchased from a UK timber merchant, who had also been notified.

With a plentiful supply of suitable wood, alongside consistent warm temperatures of between 24-26°C, the colony was able to develop.

THE HEAT IS ON

HOW WILL CLIMATE CHANGE INFLUENCE PEST CONTROL?

Effects of climate change are touching every living form on earth, including humans. Dr Partho Dhang, the author of 'Urban Pest Control: A Practitioner's Guide', explores how this generation's most significant threat will likely change how we control and eradicate pest species in the UK.

SPEED VIEW

With a 2°C temperature increase, insects might experience one to five additional life cycles per season

Warmer summers and milder winter temperatures favour mosquito development and extend the biting season

Fly populations could increase substantially, with increases of up to 244% by 2080

Temperature has shown a negative effect on synthetic pyrethroids

Shift to insecticide baits, physical barriers, pest proofing, traps, and monitors are greener choices the pest control business could move into to mitigate climate change

ONLINE CPD

An online CPD quiz based on this feature is now available on the BPCA website. BPCA affiliates can take a CPD quiz at any time **bpca.org.uk/cpd-quiz** or sign up at **bpca.org.uk/affiliate**

Earth's global mean surface temperatures have risen by 0.74°C ± 0.18°C when estimated by a linear trend over the last 100 years, and the rate of warming over the previous 50 years is almost double that in the last 100 years (IPCC, 2007).

Climate change and urban pests

The topic of climate change and urban insect pests has been recently reviewed by Dhang (2017). This review was part of a series by the Centre for Agriculture and Bioscience International (CABI), Wallingford UK, to address many topics relating to climate change. This included strategies to develop sustainable systems that minimise the impact on climate or mitigate the effects of human activity on climate change (CABI, 2021).

Urban ecosystems are rich in resources and contain excess food, water and shelter for urban pests to thrive. However, one element which has a significant influence on the life of these pests is temperature. Insects are cold-blooded organisms and cannot regulate their body temperatures. The temperature of their bodies is approximately the same as that of their immediate environment. Therefore, the temperature is probably the single most important environmental factor influencing pest behaviour, distribution, development, survival, and reproduction (Petzoldt and Seaman, 2010). It could be safely assumed that the influence of temperature on insects largely overwhelms all other environmental factors (Bale et al. 2002). Based on this, it has been estimated that with a 2°C temperature increase, insects might experience one to five additional life cycles per season (Yamamura & Kiritani, 1998).

Moreover, in the absence of predators and competitors in urban environments, pests can attain extremely high densities if unchecked. Such high populations have been brought to light on numerous occasions during catastrophic events such as natural disasters like earthquakes and tsunamis. Putrefying organic debris, inundation and large-scale breakdown of urban sanitation largely contribute to outbreaks of flies, mosquitoes and rodents (Srinivasan, 2006; CIEH, 2008; Lee 2012).

The Chartered Institute of Environmental Health (CIEH) predicted in 2008 that warmer summers and milder winter temperatures favour mosquito development and extend the biting season. It also predicted wetter winters will provide more temporary and underground aquatic sites for some species during winter and spring.

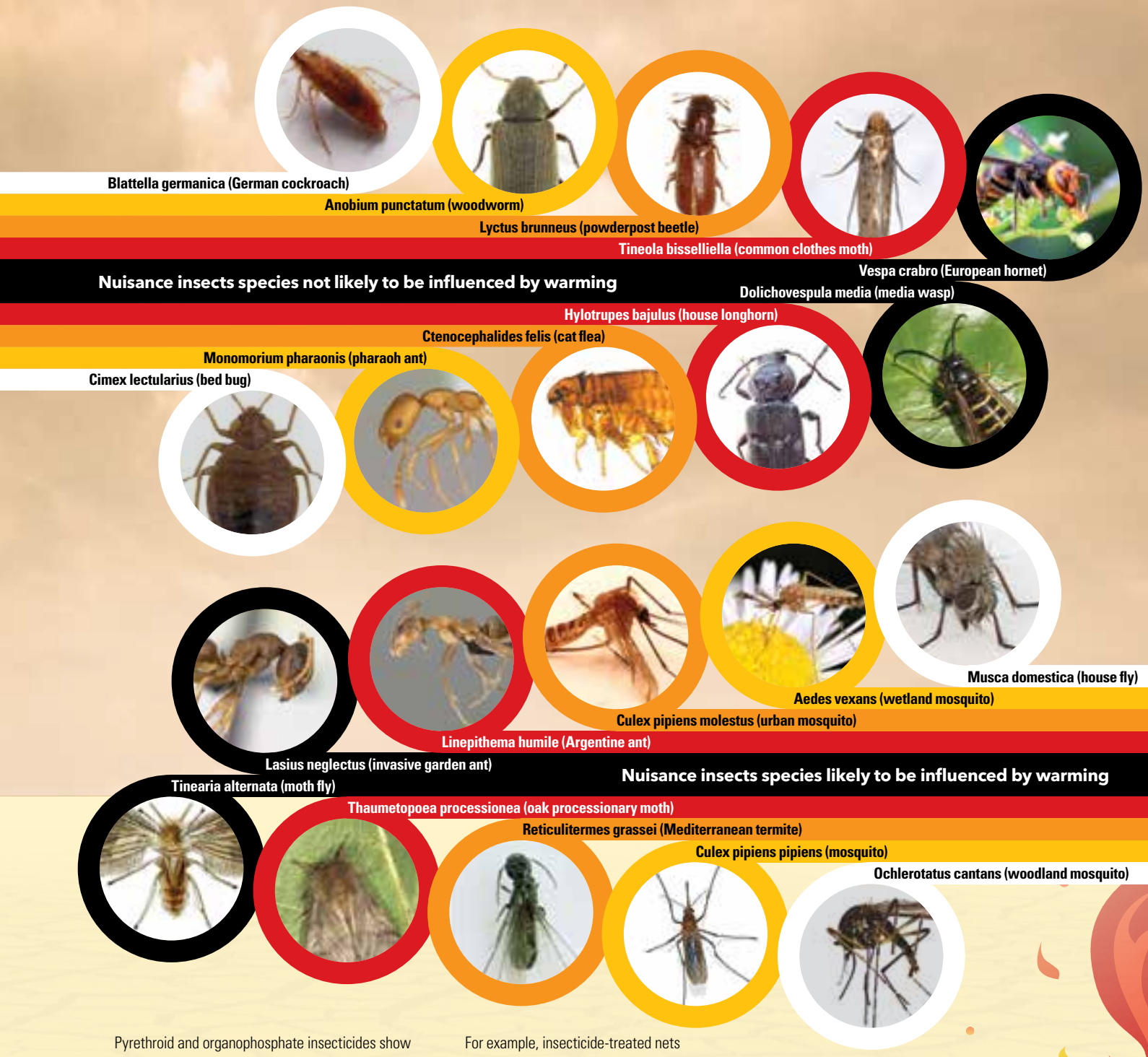
Models produced for houseflies, Musca domestica, and blowflies, Calliphora sp. showed predictions based on climatic factors were strongly correlated, suggesting that fly population changes are primarily driven by the weather rather than biotic factors (Goulson, 2005). These models predict that under likely scenarios of climate change in the UK, fly populations could increase substantially, with increases of up to 244% by 2080 compared to current levels (Goulson, 2005). Further prolonged warmth and warmer conditions to cooler zones will help establish fly populations and expand distribution.

Many other pests are also expected to be influenced by changes in the environment brought about by climate change, specifically non-vectors and nuisance pests inhabiting and frequenting urban areas. Roy et al (2009) undertook an interesting study to determine the effect of climate change on nuisance insect species in the UK. The report highlights a list of insect pests that will or will not be influenced by climate warming (see next page).

Climate change and pesticides

The efficacy of a pesticide is determined by its active ingredient. However, various chemical and physical properties of pesticide, such as stability, vaporisation, penetration and degradation, depend on temperature. A literature review shows that the effect of pesticide is rapid on insects at higher temperatures, although they do not always show a linear relationship with temperature (Uddin and Ara, 2006). Temperature has shown a positive effect on organochlorine, organophosphate and carbamates in general but has shown a negative impact on synthetic pyrethroids (Uddin and Ara, 2006; Weng and Shen, 2007).

A few studies have made an effort to evaluate the effectiveness of pesticide with relevance to climate change. In summary, it has been shown that climate change could significantly affect the efficacy of pesticides and alter the result of a pest control activity through temperature changes.



Pyrethroid and organophosphate insecticides show sensitivity to temperature; pyrethroids have a negative and organophosphates, a positive temperature coefficient, respectively (Musser and Shelton (2005). However, some studies also revealed variation in the toxicity within a given insecticide class (Muturi et al 2011, and Scott, 1995) between insect species and temperature range tested (Muturi et al 2011). Therefore, generalisation of the temperature-toxicity trend could be misleading within a given class and for different insect species (Khan and Akram, 2014).

In addition to the direct impact of temperature on insecticide efficacy, the temperature can also influence many tools and methodologies that make use of them.

For example, insecticide-treated nets (ITN), long-lasting insecticidal nets (LLIN), residual insecticide treatment (IRS), and odour-baited traps all rely on pesticides working in warm environments. It can be safely concluded that climate change and resulting temperature regimens, in particular, will have a profound influence on urban pests and their management strategies.

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THE HEAT IS ON

"Businesses can look into mechanisms that had sustained them during the pandemic as an example to take them forward."

Climate change and health of pest managers

Climate expert Grahame Madge, at the UK's Meteorological Office, told the BBC that, while weather variations occurred naturally, the world was about one degree warmer than pre-industrial levels and, as a result, extreme weather was becoming more likely. Heatwaves are not uncommon, but according to weather experts, they are amplified by a rise in global temperatures and are likely to become more frequent. This is one of the more predictable impacts of our warming climate (BBC 2019).

Pest managers regularly work outdoors and will be directly exposed to the weather components of a warming climate (Sims and Appel, 2014). Climate change will make it more difficult and expensive for pest control managers to insure their businesses or other valuable assets, particularly in risk-prone areas. Insurance is the primary means used to protect a business against weather-related disasters. Climate change will increase the frequency and intensity of extreme weather events. These changes are likely to increase property losses and cause costly disruptions to operations. Escalating losses in many areas have already affected insurance availability and affordability (Sims and Appel, 2014).

Climate change and the business of pest control

Pest control is a fossil fuel-driven business. One kilogram of an emulsion concentrate (EC) formulation contains between 500-900g of a petrochemical solvent. It is packed in a plastic bottle which is a petroleum-derived product and then shipped to a distant country using a ship that burns bunker fuel. Once received, the pest controller takes the product to a site miles from his office and potentially loads it in a stainless-steel fogging machine with a diesel diluent. The entire process is carbon-intensive but continues as it is the least expensive option.

A greener way out would be to shift to a water-based formulation, use non-plastic packaging, make the product locally and use sprayers not made of petroleum derivatives. A shift to insecticide baits, physical barriers, pest proofing, traps and monitors are certainly greener choices the pest control business could move into to mitigate climate change.

Conclusion

During the pandemic and resulting lockdown, human activity was vastly curtailed, and it is now estimated that this phenomenon changed daily fossil CO2 emissions by -17% on a global scale (Corinne Le Quere, 2020). It is agreed that this has come at an economic and social cost. Still, it opens up opportunities to set structural changes in companies and businesses for a low carbon work path.

Businesses can look into mechanisms that had sustained them during the pandemic as an example to take them forward. As an industry, we could do our part by considering:

- The calculated use of transportation
- Shift to EVs
- Automation
- Use of intelligent monitors
- Consolidated shipping
- Online meetings
- A shift from incentivising travel for staff and clients with other alternatives
- Giving a discount to clients who are into green technologies
- Putting savings in banks that fund earth-friendly technologies.

These measures will delay (if not stop) the perils caused by climate change.

In the words of Bill Gates, "When we have a fact-based view of climate change, we can see that we have some of the things we need to avoid a climate disaster, but not all of them."

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OPINION

APOCALYPSE WHEN? A FUTURE WITHOUT RODENTICIDES

Written by Alex Wade from BPCA member company, Wade Environmental.
wadeenvironmental.com

Before you roll your eyes and flip past this thinking this is another article beating professional pest management over the head with a stick, then stop. It's not.

What I want to ask however, is this: what happens if our fears do come to pass? It is, after all, a constant anxiety for our industry.

That fear that one day our luck will run dry and a decision will be made that stops us from being able to use rodenticides. This hasn't been the first time that rodenticides have faced a perilous future. Most of the chemicals at our disposal are considered to be "bioaccumulative, persistent and toxic", three words that are generally frowned upon in almost every industry and by their associated decision-makers.

So much so, that previous votes in the early 2000s on the continued use of rodenticides saw Difenacoum pass a resolution by just a handful of votes, to maintain its inclusion in the catalogue of active materials available to industry.

Pest control without SGARs

If Difenacoum had failed this measure it would have begun a cascade of comparative analysis assessments that could have seen the other second generation anticoagulants (SGARs) fall one at a time like dominoes, potentially causing untold chaos for the pest management industry.

However, the first and second generation anticoagulant rodenticides are not the only forms of chemical control at our disposal. What I mean to say, rather, is not a future without rodenticides, but a future with fewer rodenticides, and is this a manageable situation?

In a nutshell, yes; we have alternative chemical control methods for both rats and mice which aren't reliant on the mode of actions of anticoagulants and have in their own right been proven to be both reliable and effective.

We have physical control methods such as break-back traps which are evolving rapidly to integrate themselves into smart technologies, an avenue of research and application which promises to deliver some big things within the next couple of years.

But, should this mean therefore that we simply shrug our shoulders, admit that anticoagulant rodenticides have had a good crack and turn our backs to them? Absolutely not.

They are a fundamental part of our toolkit. When they are used properly, effectively and responsibly they are a phenomenal tool for the control of rodent species.

We can see therefore that this industry walks a constant knife edge. On one side we have the desire from the public to be pest-free and on the other side the distaste associated with the 'control' of pests.

And, it is our business therefore to walk this line and manage populations of pests. After we have deployed our skills in proofing, housekeeping and environmental management, there will often come a point where a lethal intervention must be considered. And, there's the rub, surely?

Heart over head

Policies are not just made on the cold clinical data of technical efficacy, they are also made on emotional reasoning, and something that is lethal must surely be 'dangerous'. One also must remember that 'dangerous' in this context expands beyond the realms of humans.

Break-back traps may be safe for humans to handle (minus some embarrassing hand waving if you manage to put your thumb somewhere exciting when placing them) but certainly, for every animal smaller than a rat, these traps will not discriminate and will still have the potential to be lethal. The same goes for any form of chemical intervention, where the only difference in effect between a rodent and an elephant is their body mass.

To the average person this can clearly be a concern, especially when these statements are made about these chemicals without any context, compounded further by the fact that nothing can ever truly be 100% safe.

> "On one side we have the desire from the public to be pest-free and on the other side the distaste associated with the 'control' of pests."

Safe operators = safe rodenticide

What stops these products both large and small, chemical and physical, from becoming potential disasters then? Well, it is us (or rather it is you) who makes these products dependable and secure.

This is the part that is often not considered by the casual observer. Pest control is not just a case of killing rats in your garden, it's the skill to not kill everything else in the garden too which is what sets the cost and value of a pest management professional apart from the DIY 'enthusiast'.

Yet the worth of professional pest management is consistently undervalued, whereas the risks associated with the tools at our disposal are still considered to be high. The skills and mitigations that our training provides, can be shadowed by the bad practice of a few and the ignorance of others.

A 'lucky' bunch?

We can see the danger that is presented to the products in our arsenal, and how it seems that we are thrust back to my original statement: that we are 'lucky' to have these products still available to us.

But it is not luck at all, although it certainly feels like it. What it is, is hard work and diligence from all within the pest management industry.

Manufacturers work tirelessly with regulatory bodies to ensure products are formulated to be deemed to be 'safe' and effective. Developments are made to products which means that their presentation and use-patterns are robust and well implemented.

Trade bodies and industry working groups of volunteers work on policymaking and good practice documentation.

Finally, professional pest management officers like yourself keep current with your skills, keep well informed of the changes in the law and use products as they are intended.

All these things, and more, are what make our 'luck'. And, although you may think that using your tub of rodenticide on a farm in the middle of nowhere, out of sight, has no impact on the global policies being made – it does.

It all adds up to paint a picture that will influence how these products and how these chemicals are perceived in the future.

What you all do gives us positive justifications to continue to use these products. Because, when the day arrives where their use is finally put to another vote, our actions will define what we can use, and ultimately who can use it.

Thought-leading starts with you

Got an opinion, unpopular or otherwise? Share it here. PPC is looking for volunteer writers for opinion and analysis pieces. Submit yours now.
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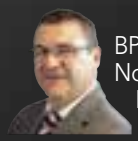
GREENER ISN'T ALWAYS BETTER

NON-CHEMICAL ALTERNATIVES FOR RODENT CONTROL (NoCheRo)



BPCA Chief Executive Ian Andrew investigates NoCheRo, an initiative of the German Environment Agency that effectively wants to ban chemical control methods for rodents.

SPEED VIEW

NoCheRo believe that non-chemical rodent control solutions are a sufficient replacement for rodenticides

We need to keep considering workable alternatives as rodent populations develop behavioural and genetic resistance to anticoagulants

A NoCheRo working party was established to develop technical guidance on trap testing and evaluation

NoCheRo's findings may have implications outside of the EU as any project from any corner of the globe can be picked up and quoted as 'evidence' to support a cause

We all believe in minimising the use of biocides for a more sustainable, greener pest management sector. However, rodenticides have been a crucial part of the pest professional's toolkit for decades – could the sector go without them completely?

The Non-Chemical Alternatives for Rodent Control (NoCheRo) group believe that non-chemical rodent control solutions are a sufficient replacement for rodenticides. Stakeholders with a similar stance have been gathering in Europe since 2018 to build the case for traps as 'adequate non-chemical alternatives in rodent control'.

A professional attitude towards rodenticides

As a sector, we know we still rely on anticoagulant rodenticides to control rats and mice. We're also aware that the products we use need to be handled professionally and, in the UK, under the stewardship regime of CRRU.

We're aware that anticoagulant rodenticides are toxic and pose a risk to non-target species when used irresponsibly. We also know that rodenticides potentially cause suffering to target species. However, when we balance those risks against the potential harm to humans' physical and mental health, we're satisfied that the risk to humans is the greater risk. Rodenticides are an efficient and effective solution over time that protect humans from suffering. And therefore, we argue vehemently for these substances to remain available to professionals.

That said, we cannot be complacent, and we need to keep considering workable alternatives as rodent populations develop behavioural and genetic resistance to anticoagulants over time. If you spent time exploring the PestExtra virtual exhibitor hall, you'd have seen plenty of innovation in rodent control and maybe even a trend of turning away from SGARs.

A regulators attitude towards rodenticides

The availability of these products have been tightly regulated in Europe and will continue to be tightly controlled by HSE here in the UK post-Brexit.

The argument for these products being licensed for use lies predominantly because there is no viable alternative.

That's where the NoCheRo initiative comes in. The aim is to prove that traps are a viable alternative to rodenticides. And this isn't just a thought experiment. A testing regime is being produced to prove the efficacy, practicability and humaneness of traps as a credible alternative to anticoagulants.

STATED AIMS OF NoCheRo

A rough schedule for the planned follow-up activities was published after the first NoCheRo workshop.

Report on the NoCheRo Workshop (Brussels, 20-21 November 2018)

Short-term aims

- Follow-up workshop (now complete)
- The working party will develop a draft of a technical guidance document for trap testing until the follow-up workshop (due imminently)

Mid-term aims

- Adopted technical guidance document until re-authorization of AR in 2024
- Consideration of traps as a non-chemical alternative within the next comparative assessment
- Implementation of an international/EU-wide (voluntary) certification scheme for traps.

Long-term aim

- Development and implementation of an international/EU-wide authorisation scheme for traps as non-chemical alternatives (cf. Sweden)

In 2018, Brussels hosted the first NoCheRo workshop led by the German Environment Agency (UBA).

During the two day workshop, the relevance of non-chemical alternatives in rodent control was looked at from three different perspectives: pest control industry, authority and academics.

The scientific background on animal welfare and existing trap type approval/certification systems in Sweden and New Zealand were presented. In a summary of the workshop, NoCheRo said, "It became apparent that an assessment of traps regarding the efficacy and animal welfare impact is lacking for most European countries".

As a result of the workshop, a working party with experts from authorities in pest control and scientific organisations was established to develop technical guidance on trap testing and evaluation.

The stakeholders came together again in February 2020, just before the UK entered lockdown. It was organised by the European Commission (EC) department for Health and Food Safety (DG Santé) and was chaired by the German Environment Agency.

The first draft guidance for a break-back/snap trap was presented to representatives from the EU Member States authorities on biocides, the European Commission, the scientific community, NGOs and industry for discussion.

The Germany Environment Agency website summarises: "Overall, the guidance was generally accepted by the participants of the workshop. However, some aspects were identified for improvement.

"The critique points concerned the shelf-life or use-life of traps, effects on non-target organisms, the influence of lure type in the assessment of efficacy, user categories (general public, professionals) and improvement of the good practice code for trap use. It was agreed that the expert working party should rework the guidance in these topics."

Implications and findings

NoCheRo will shortly publish what it believes to be a testing regime for traps that'll demonstrate that they are a credible alternative to chemical control methods. I'm sure we will return to that subject once the report is in the public domain.

The report is likely to recommend a voluntary testing regime for traps, something that BPCA has already been discussing at committee level.

We now live in a post-Brexit world, and so those in the UK may be thinking, "so what?"

Any research or project from any corner of the globe can be picked up and quoted as 'evidence' to support a cause. We've already seen this in government reports on glue boards, and the government will welcome a report (regardless of its source) that gives 'evidence' of traps as an alternative to chemicals.

Where will that leave us here in the UK?

As pest professionals, we know that traps can replace chemicals some of the time. However, we're clear that there are many other criteria to consider, such as the extent of the infestation, the location, the propensity of trap shyness – the list goes on for so long that it certainly wouldn't fit in a single report.

We also need to ensure that all traps are considered, not just break-back traps. For example, in countries where rodenticides have been more tightly controlled, there are legal differences. Many countries have adopted the drowning traps, which are illegal in the UK, despite their apparent effectiveness.

The argument that traps are a credible alternative to chemical control methods is a complex one. Some of these arguments will likely be tested in the forthcoming government oversight committee review of CRRU.

In the meantime, we can only keep a watching brief on NoCheRo and ensure we gather robust evidence that shows traps work well some of the time and are a fundamental element in an Integrated Pest Management approach. We remain sceptical that traps alone will ensure the maintenance of human health and wellbeing, that rodents being in the wrong place at the wrong time causes.

CONCLUSIONS FROM THE FIRST NOCHERO WORKSHOP

"Throughout the workshop it became apparent that members of the industry need a common voice to approach the following tasks:

- Promotion of the advantages of trap systems as opposed to the use and possible overuse of rodenticides
- Definition of criteria for trap efficacy and the level of humaneness
- Definition of criteria for trap testing: physical properties
- Implementation of an assessment scheme for traps
- Implementation of an (international/EU) authorisation or certification scheme
- Pave the way to consider traps within the comparative assessment of rodenticides by conducting and publishing scientifically sound lab and/or field tests in peer-reviewed journals.

Overall, the participants of this first workshop on non-chemical alternatives for rodent control agreed that these alternatives deserve more attention and should be fostered as new technologies which will help not only modernise the pest control industry, but can also present a new means of tox-free and green pest control."

Report on the NoCheRo Workshop (Brussels, 20-21 November 2018)

"We remain sceptical that traps alone will ensure the maintenance of human health and wellbeing..."

Are you ready to give up rodenticides?

The future of chemical controls is complicated, and every company will use their toolkits differently. Let us know your thoughts on chemical-free pest management, and we might print them here.
hello@bpca.org.uk

A MODERN RAT'S TALE

DUTCH EXPERIENCES WITH RODENTICIDE REDUCTION

At PestExtra 2021, Dr Bastiaan Meerburg gave a presentation on the impact that reducing rodenticide use had on the Dutch approach to rodent control.

SPEED VIEW

In the UK and the Netherlands, emphasis has moved from extermination to prevention

IPM has many advantages but requires responsible citizenship and governments

Government and councils avoid paying for preventative pest control measures, only taking action when forced

No research on resistance in the Netherlands since 2012, leaving Dutch pest professionals with an outdated map

Dutch policy changes from 2023 onwards: anticoagulants off-limits to non-professionals

Digital monitoring technology helps IPM

Dr Meerburg obtained his PhD in medicine from the University of Amsterdam in 2006, with his main focus being the zoonotic risks of rodents in livestock production.

As Director of the Dutch Pest and Wildlife Expertise Centre, and Senior Researcher at Wageningen University, he specialises in educating pest professionals about integrated pest management and advising the public.

Development of rodent management in the Netherlands

Dr Meerburg's presentation began with a 'then and now' comparison of rodent control in the Netherlands and how it has evolved in pretty much the same way as here in the UK.

Where previously there was an emphasis on 'exterminating', now we approach rodent control within the principles of Integrated Pest Management (IPM). This is a shift in focus that has been necessary as attitudes, knowledge and regulations have changed.

Monitoring, early detection and habitat management play much more important roles in this new dynamic, says Dr Meerburg.

And when rodents are found to be present, you start your control measures, ranging from non-chemical to chemical.

There are many advantages of IPM:

- Less environmental damage
- Reduced chances of secondary and non-target poisoning
- Improved animal welfare.

However, Dr Meerburg says that one of the main problems with IPM is that it requires "responsible citizenship and governments".

"Rats and mice benefit from sloppy people," he declares; a sentiment I'm sure we can all agree with.

An interesting take on pest management was his comparison to Sir Isaac Newton's First Law (Law of Inertia). Sir Newton defined inertia as the resistance of any physical object to any change in its velocity, including changes to the object's speed or direction of motion.

If an object is not moving, it will stay that way unless a net force acts on it. And similarly, if an object is in motion, it will remain in motion unless a net force acts to stop it.

Dr Meerburg believes the same is more or less valid for pest management.

Often you have a government that, most of the time, is happy to leave things as they are rather than spend money on preventative action when it comes to rodent control. Then suddenly, when bins aren't being emptied, or flooding happens, and the

ACUTE POISONS: AGES-OLD MAINSTAY FOR RODENT CONTROL

Single feed baits like zinc phosphide are still quite common in some parts of the world, such as India. It's a rodenticide for single uptake, and the rodent dies one to three days after ingesting it because the stomach's acid reacts with the phosphide and a toxic gas emerges.

As with all single baits, there are major disadvantages, especially concerning bait shyness, because rodents can link the death of their fellows with the bait.

You also have non-target poisoning, and this is something that is also really problematic in India. Not only are there a lot of accidental poisonings, but also people commonly use these types of poisons to commit suicide or murder.

These types of poisons have very high mortality rates.

numbers of complaints are rising until there's a lot of media attention, suddenly governments begin to take notice. That's the net force that acts upon them to change their state of motion.

But unfortunately, those governments do not stay in motion. Once they've taken action and the rat numbers start to reduce again, they say, "Okay, this has worked so that we can stop now."

They either don't understand the value of preventative action, or they don't want to invest in it because spending money on 'nothing' causes friction.

That's the crux of public health issues like pest control because if we're doing our preventative work right for our clients, it can look like money is being spent on something that they don't see results for.

And this can be one of the biggest problems with IPM. It relies on both government and citizens taking a responsible, preventative approach.

Dr Meerburg says that in the Netherlands, there are four ministries at government level which have responsibility for pest control, which means that they often pass the buck to each other as nobody wants to take ownership of it.

Rodenticides

Issues with rodenticide resistance, which have formed over the years, are another reason for an increased interest in pest technicians implementing IPM.

Dr Meerburg praised the work of the Rodenticide Resistance Action Group (RRAG) on tracking the movement of resistance across the UK and mapping out the effectiveness of rodenticides.

He said that pest management professionals in the Netherlands are struggling to get the attention of a hesitant government on the subject of resistance.

Other than some information from a study carried out in 2012, which gave professionals a snapshot of the resistance situation at that particular time, there's been no further work on the topic.

Unfortunately, sending samples in for rodenticide testing now is costly, a huge drawback for pest professionals and those who hire them, which is why the resistance situation in the Netherlands is largely outdated.

However, even with old information, the mapping of areas of resistance (like we do in the UK) has enabled pest management professionals in the Netherlands to utilise IPM when controlling rodents in high resistance areas.

Dutch policy since 2014 has aimed to ensure that untrained people use fewer rodenticides, however in practice, it didn't appear to work. In 2017, research by the National Institute for Public Health and the Environment showed that non-professionals used just as many rodenticides as in the years before Dutch policy changed.

Moreover, they saw that these rodenticides were often not well applied. Almost half of the people they interviewed admitted to not reading the labels and did not know that only licensed pest controllers can use rodenticides against rats in the Netherlands.

Dutch policy is changing so that from 2023 onwards, anticoagulants will be completely off-limits to non-professional users. Although rodenticide use by non-professionals has its own issues, there are also worries that rodent numbers will increase because of a lack of knowledge around traps and neophobia.

There are also no rules or regulations around how traps are made in the Netherlands, which often means traps aren't strong enough to successfully or humanely control rodents.

There are also issues with an unwillingness to hire a professional. From research carried out, only two per cent of the people interviewed hired pest controllers to deal with mice, and if they had rats, only 20% hired a professional.

Future of IPM

Dr Meerburg shared his final thoughts on new digital monitoring technology, which he believes will help facilitate IPM effectively as we move forward.

"We educate pest controllers in the Netherlands on IPM, and we have specific training on new digital technologies, like thermal imaging.

"IPM is crucial, and there's so much modern technology to help get rid of rats."

As pest management professionals, the best thing we can do regarding reducing rodenticide use and using IPM is to share our expertise with customers and the general public, and where possible, your local council or members of parliament.

You're the expert, and you know that preventative measures, habitat management and monitoring are the first and best line of defence, so share that knowledge where you can.

Did you miss the show?

If you didn't catch Dr Meerburg's presentation at PestExtra, you can watch it in full on our website. **bpca.org.uk/cpd-videos**

THE SCIENCE OF SMELL

EXPLOITING BED BUG BIOLOGY WITH PHEROMONES

Bed bugs remain one of the most challenging insect pests to monitor and control. Dr Laura Tugwell and Dr Victor Brugman, from Vecotech Ltd, track their innovation journey from scientific question to commercial product. Insights are shared into the technical processes and cutting-edge chemical ecology techniques behind the development of their new, research-led bed bug lure, BugScents™.

SPEED VIEW

>50% of bed bug infestationsgo unnoticed

Understanding the bed bug life cycle and their navigation cues enables us to manipulate them for monitoring and control

Pheromones are chemical cues emitted by an insect to change the behaviour of another

Live bed bugs were subjected to behavioural experiments to understand how different compounds in pheromones affect them

As with any pheromone-baited trap, chemicals are added to a matrix placed in the trap

The problem with bed bugs

Bed bugs (Cimex lectularius, Hemiptera: Cimicidae) are a serious economic threat to the hospitality industry, and their detection and control remain challenges to pest professionals in many settings.

Preventing bed bug infestations is key to avoid expensive eradication costs. This can be achieved through effective bed bug monitoring to detect infestations early, helping to verify treatment success and check for re-infestation.

Factors including widespread resistance to commonly used insecticides and, pre-pandemic at least, increased international and domestic travel, have contributed to a global rise in infestations.

At the local level, the ability of the bugs to spread rapidly (estimates suggest bed bugs can travel up to one metre per minute), evade detection and survive long periods between blood-feeds mean infestations can easily be overlooked.

As a result, more than 50% of infestations can go unnoticed. This is exacerbated by the ability of the bed bugs to hide almost anywhere within the complex 'geography' of a property. This means they can move and re-infest between neighbouring units, adding further challenges in multiple-occupancy settings in particular.

Bed bugs are therefore well adapted for urban co-habitation with humans and their natural behaviour presents us with numerous barriers to their control. However, it is this natural behaviour that also presents us with opportunities.

By understanding each step in the bed bug life cycle and the cues used by them to navigate their environment, we can begin to manipulate them for the benefit of monitoring and control. It is this exploitable biology that forms the basis of Vecotech Ltd's innovation, the BugScents™ bed bug lure.

Its patented formulation mimics the smell of a bed bug aggregation and causes bed bugs to move towards the lure and into the trap in which it is deployed, providing enhanced detection of even low-level infestations.

Exploiting bed bug biology

Bed bugs, in common with other insects, are highly sensitive to their environment. Through a system of receptor mechanisms, bed bugs can detect and process a variety of cues from their environment and other bed bugs.

These cues are then translated to changes in behaviour which include feeding, mating and avoiding danger.

Pheromones are chemical cues emitted by one insect which then causes a behavioural change in another. For bed bugs specifically, pheromones can cause them to form aggregations whereby the bugs group together in refuges.

Even subtle differences in the chemical composition of these pheromones can influence how another bed bug will respond. Across the spectrum of insect pests, supplementing monitoring traps with pheromone attractants has been shown to boost both the sensitivity and specificity of detection.

The natural tendency of bed bugs to aggregate together in favourable refuges has long been recognised, yet at the start of the BugScents™ innovation journey some twelve years ago, very little was known about the aggregation pheromone that facilitated this behaviour.

Uncovering the chemical composition of the aggregation pheromone could provide the vital tools needed to enhance existing monitoring systems. So, which chemicals within this pheromone odour are responsible for this aggregation response?

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"The team began to investigate the characteristics of an established bed bug infestation that will be familiar to many: faecal stains, presence of shed cuticles and the unique odour."

Scientific innovation and development

World-leading experts in medical entomology and chemical ecology at the London School of Hygiene and Tropical Medicine (LSHTM) and Rothamsted Research have spent over a decade answering this important question.

The team began to investigate the characteristics of an established bed bug infestation that will be familiar to many: faecal stains, presence of shed cuticles and the unique odour.

Initial experiments revealed that filter paper previously exposed to bed bugs and containing these hallmarks of infestation was more attractive to bed bugs than their clean filter paper counterparts. All bed bugs behaved in this way regardless of sex, life stage, or if they had fed or not.

With the attractive role of the faecal and cuticle matter established, the next step was to find out the specific chemical compounds causing this behavioural response. To achieve this, the chemicals from the bed bug exposed filters papers were extracted and collected using specialist air purifying equipment in a process called air entrainment.

Firstly, clean (charcoal-purified) air is passed over the bed bug exposed filter paper in a sealed chamber. Any volatile chemicals drawn into the air stream are captured onto a porous material and then washed off, generating a liquid chemical mixture.

The compounds in this extract are then separated and identified based on their relative chemical properties using gas chromatography and coupled gas chromatography-mass spectrometry methods.

Next, the identity of those compounds causing a physiological response in bed bugs was determined. When an insect responds to a chemical cue like a pheromone, the antennae generate a small electrical signal. By attaching electrodes to the insect's antenna, a complete electrical circuit is created.

In this process, called electroantennography (EAG), bed bugs are exposed to the compounds within the extracted chemical mixture. If receptors in the antennae respond to a compound, an electrical response is recorded.

Using this innovative technique over twenty different electrophysiologically active compounds were identified. But the influence of each of these compounds is not equal. Some compounds will be produced in greater quantities, or play a relatively more important role in the attractive response.

The number of compounds is also a key commercial consideration; formulation stability and performance must be balanced by product cost targets. Furthermore, EAG only tells us the insect is responding to a compound, not whether it is attractive or repellent to the insect.

To address this, an extensive series of behavioural experiments were carried out using live bed bugs. These tests involved sequentially screening out compounds of less significance on the aggregation response.

The search was narrowed down and eventually left just two compounds from the aggregation pheromone which dramatically, and consistently, induced the aggregation behaviour.

Optimal doses of these two key aggregation compounds were defined, and a unique and innovative blend was synthesised. This scientific discovery was patented allowing for its application in bed bug monitoring enhancement.

Applying research to provide a solution

At this stage, Vecotech Ltd took over the product development reins. As the first spin-out company from LSHTM we are ideally positioned to accelerate the development of promising novel research through to application.

Supported by a prestigious Innovate UK grant, Vecotech embarked on a research and development pathway encompassing the latest in chemical ecology, insect behaviour and materials science.

With target end-user features firmly in mind, the innovative formulation was further refined. As with any pheromone-baited trap, chemicals are added (impregnated) into a matrix which is then placed in the trap.

At Vecotech, several candidate matrices and associated chemical impregnation methods were evaluated. The efficacy and stability of these were tested through a series of scaled behavioural experiments exploring the bugs' responses to cues.

These were conducted across increasingly larger distances and in more complex environments, including our 'baited bedrooms' which allow the bugs to wander freely, mimicking a natural setting.

The result is BugScents™, a long-lasting lure impregnated into a biodegradable matrix, effective at attracting bed bugs even in low-level infestations. BugScents™ is sealed within a protective foil sachet which can be stored at room temperature for at least two years.

It has been designed with compatibility in mind and can be used with a wide range of trap types including pitfall-style and sticky traps. When opened and placed inside a trap, the impregnated material will continue to release the active compounds for up to three months.

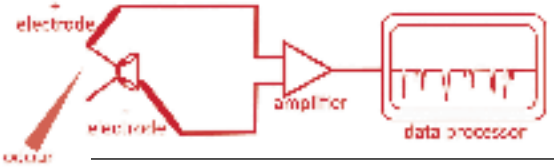
The development of this product is all the more remarkable for having taken place during the Covid-19 pandemic and all of the challenges this has brought to businesses. The Vecotech team has embraced the challenge and, in collaboration with UK-based partners, is pleased to have brought a new product to the market.

Benefits of BugScents™ to PCPs

The BugScents™ technology has been developed to provide an effective, long-lasting, and environmentally friendly solution to detecting bugs before an infestation becomes established. Pest control professionals are now able to enhance their bed bug monitoring devices allowing for the rapid detection of early-stage infestations.

The BugScents™ lure can be used with a monitoring trap as part of regular pest control activities to:

- Confirm the presence of a bed bug infestation
- Verify the success of treatment
- Monitor for re-infestation following treatment
- Enable long-term monitoring of high-risk properties.



In electroantennography (EAG), bed bugs are exposed to the compounds within the extracted chemical mixture.

Want to learn more?
Take a look at the new BugScents™ website.
bugscents.com

SO YOU WANT TO FLY HAWKS?

Paul Wilson owns a small, family-run wildlife and pest control company: Independent Wildlife Management. He spoke to PPC about flying hawks as part of your pest management toolkit.

Before you enter into the world of wildlife and bird control with hawks, you need to ask yourself a few questions:

- Is your family behind you 100%?
- Do you have start-up capital?
- Do you have the time to make this work?
- Do you have the knowledge to succeed?

If you answered yes to all of the above, then that's step one on your journey.

Before I answer these questions from my perspective, remember: everyone works differently, and what works for me could be very different for you. Everyone finds their way to do things, and that's okay.

Is your family behind you 100%?

For me, this is a critical question, as, without the back up of my family, I could not have carried on when things got tough and money became tight.

I have gone back to work for several companies over the years as a pest technician, especially when things have not gone to plan.

You have to think about the time you spend with your hawks, especially when you're training a bird.

Can you sit in the house while manning your hawk so it can get to know your dogs, ferrets, children and noise from the life around you?

Can you take it with you when you visit family and friends so that it can travel in your car?

Can you be away from home when your employer asks you to travel across the country to cover a job?

Who will look after the hawk when you go on holiday? All our holidays are in the UK, and the hawks have been with us from Cornwall to Inverness.

For me, wildlife control is a way of life, not a job, and your family has to be part of everything you do.

DO YOU HAVE START-UP CAPITAL?

You'll need deep pockets if you're starting from scratch. Before you even think about buying a bird, you will need to get the basics in place.

Mews/housing
I'm lucky as I have a construction background, and I built my own housing. But if you buy one or have someone make one for you, you'll be looking at £500-1,000 depending on the room you have at home and how many birds you need.

You will need lights, sockets and heating to keep you and your hawks warm on those dark winter evenings. That alone could cost you a minimum of £200 just for an electrician, plus all the fixtures and fittings.

Telemetry/tracking
Do not fly your birds without the ability to track them. I have seen used telemetry for £250, but for new equipment you can spend over £1,000. This is something you can't go without, as a lost bird is something you do not want. As well as the lost income, the bird's welfare is critical. I lost a hawk a few years ago, and I let that bird down. I do not want that feeling again, and neither do you.

Pest control insurance
If you are self-employed or a sole trader, you will need pest control insurance covering the work you do and the animals you use. If you're a BPCA member, having the correct insurance is a requirement anyway.

General equipment
Bow perches, bird baths, weighing scales, gloves, anklets/jesses, and everything else you pick up along the way can easily set you back several hundred pounds per bird.

Travel boxes
The hawk will need to travel in your van. For the safety of the bird while travelling, a travel box can be made or bought. I have both types, some built into the van and some bought online. For a large travel box, you can pay around £150. The cost soon mounts up when you have three or four birds in a van.

Chest freezer and food
You will need a freezer to keep all your hawk food in. I am sure your family will not share the freezer space with day-old chicks, wood pigeons or squirrels. You can buy a good second-hand one for between £50-100.

If you can afford it, buy a new one. Make sure you have a reliable supply of frozen food when you first start out.

Transport
If you want to be self-employed or sub-contract, then you will need a reliable van. The cost of this includes the vehicle, insurance, fuel costs and maintenance. Without a new van, I don't think I could travel around the UK as confidently as I do, knowing I will arrive at a job on time and not let anyone down. My van is now three years old, and it's still in mint condition, but every van has its day, and I will trade it in soon.

Veterinary bills
Make sure you have a vet that has an excellent working knowledge of birds of prey. I do have a good vet, but apart from visits for a check-up, I seem to be lucky up to now (touch wood). However, I know falconers whose hawks have been injured by squirrels. These bites can be very deep or even take off a talon.

If you have a target of £3,500 for the essential start-up cost, not including the hawks' cost, and you come in under that, you have done well.

Do you have the time to make this work?

First of all, see question one. Your family must be on board with this from day one.

There are no two ways about it: you won't get to spend as much quality time with your family as you would like, especially when you're first setting up and might have a full-time job plus your own business to get off the ground.

If you are already working up to a 10-hour day to bring in a living, can you then come home at night and spend all your free time building mews/housing, training and looking after hawks, making travel boxes etc?

Can you spend £3,000 on equipment, knowing your kids will go without a holiday this year?

Hawks can take over your life, don't let them take over your family. You need to find the right work/life balance.

Do you have the knowledge to succeed?

The more knowledge you have of the wildlife and pests we catch, the more successful you will be. Hawks are just one piece of the jigsaw and can start you off in bird control, but you must be able to use every method you have at your disposal to survive in our field.

Trapping, shooting, proofing, habitat management, as well as your hawks, will all be needed for you to build your successful pest control business.

Have excellent working knowledge of all types of wildlife and, if you can, learn to catch moles, rabbits, birds, squirrels, fox and mink.

Be confident in setting traps. There are courses you can take for this, and they are worth taking.

If you're flying hawks, you'll be doing a lot of bird control - are you fully up-to-date with your knowledge of the relevant legislation and how to apply for licences?

Prove your professionalism by studying and passing your Level 2 Award in Pest Management. It's not mandatory to operate as a pest controller in the UK, but why wouldn't you give yourself all the knowledge you can to succeed?

If you can, talk to other pest technicians who have falconry and wildlife knowledge. Our biggest wealth of knowledge can often come from each other and industry experts like the technical team at BPCA.

When I started pest control, I worked with two people, Steve Quick and Dee Ward-Thompson, who gave me their knowledge for free. That was the spark I needed, and if they are reading this, I'd like to thank them both.

I am also happy to pass on any knowledge I have - if you contact me I will try to answer your questions.

PS. If I can do this for a living, so can you. Good luck!

Get in touch with Paul

If you have any questions for Paul about flying hawks, drop him a message via his website.
iwm@iwm24.com

ARE WE THERE YET?

ELECTRIC VEHICLES FOR PEST MANAGEMENT

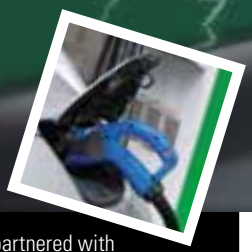
From tax hikes to electric charging points, going electric is a complicated subject. It's only a matter of time before most commercial vehicles on UK roads are electric vehicles (EVs). The question isn't if you'll go electric – it's when. Marketing Manager and PPC editor Scott Johnstone investigates whether the time is right for your fleet to go electric.

Sceptical about EVs? Me too. I'm rarely an early adopter. When I invest in new technology, I want all the kinks to have been ironed out. 'Going electric' as an individual fills me with apprehension. What if I run out of charge? Where do I fix an EV if it goes wrong? Will the technology be obsolete in a few years? For diesel-powered businesses like pest companies, making a change this significant is a balance between cost-savings, investment, ethics and logistics.

The shift away from dead-dinosaur-based fuel sources is inevitable, and socio-political pressures are accelerating the change. But the specific tipping point for individuals and businesses to make the leap depends on several more practical factors.

CASE STUDIES

ELECTRIC PEST CONTROL FLEET



Liverpool City Council partnered with Renault UK to replace its entire fleet of pest control vans with new electric vehicles. This project was part of the Council's larger initiative to improve local air quality.

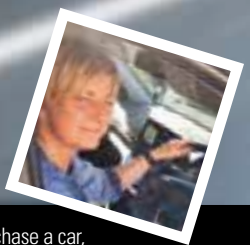
The Kangoo electric vans were custom-built, so council workers can easily transfer necessary gears and even access a concealed hygiene station between jobs. The vans produce zero tailpipe emissions and, in summer, can travel up to 125 miles before a recharge.

ECO-WARRIOR

"I've always been an eco-warrior and have been researching EVs for some time. My concern was the distance I travel, and the worry of running out of charge. This year, when my old car decided to give up the ghost, I decided to take the leap of faith after finding a EV with 300 mile range. I could not be more happy. It's a great feeling driving your car knowing that you are not polluting the planet."

Dee Ward-Thompson
BPCA Head of Technical and Membership

COFFEE AND CAKE



"Whenever we purchase a car, my husband always shops around and compares vehicles so it was no surprise when he started to review electric cars. As Dee said, the concern was the mileage you can do before running out of charge. We soon realised that it's all in the planning of your journey but no pollution, free car tax and 'having' to stop for coffee and cake, means owning an EV is a win-win in our household!"

Rachel Eyre
BPCA Member Support Officer

"While the average range of a new electric van is between 80-120 miles, there are plenty of factors that can affect what distance you'll get between charges..."

Government pressure

We'd all like to be a bit greener - but in reality, EVs have to be a practical alternative to diesel or petrol. Air quality in cities is a significant concern for the general public, which is reflected in government policy **laqm.defra.gov.uk/public-health/public-health-impacts.html**

Diesel cars currently face higher VED tax banding and Company Car Tax. Vans may be exempt for now, but for how long? The UK has committed to stop the sale of new petrol and diesel cars and vans by 2030 **bbc.co.uk/news/science-environment-54981425**

Millions of diesel vehicle drivers face a £12.50 daily fee to drive in the centre of London after launching its Ultra Low Emission Zone (ULEZ). The zone affected is set to increase in size from 25 October 2021 drastically. Vehicles pay based on their emissions rating (petrol is Euro 4, diesel is Euro 6), meaning all diesel vehicles made after September 2016 shouldn't be affected (yet). Around 30 other areas plan to implement clean air zones, with many likely to come into effect this year **tfl.gov.uk/modes/driving/ultra-low-emission-zone/ulez-expansion**
fleetnews.co.uk/fleet-faq/what-are-the-proposed-uk-clean-air-zones-caz

Many areas are also considering higher parking charges for diesel vehicles to reduce polluting vehicles in highly populated areas **buyacar.co.uk/cars/diesel-cars/460/diesel-tax-new-charges-and-surcharges-for-uk-drivers**

The scales are indeed set to slide towards the favour of EVs, however that doesn't necessarily mean 2021 is the year to shift gears.

Battery range

The most significant deciding factor on whether an electric van is right for your business will be battery range. If an electric van can't cover the miles you do in a day on a single charge, then it's unlikely to be the solution for you.

While the average range of a new electric van is between 80-120 miles, there are plenty of factors that can affect what distance you'll get between charges:

- If it's cold, then your 100 mile average could dip to 50 miles
- The way you drive an EV affects the miles-per-charge too – reports suggest most drivers actually get about 70 miles per charge
- Like a heated seat in winter? That could knock some more miles off
- Your payload could dramatically reduce the actual mileage range – although this is unlikely to be affected by an average pest tech's load.

autoexpress.co.uk/vans/98614/electric-van-guide-can-an-ev-van-work-for-your-business

If you do more than 100 miles a day, an electric van probably isn't right for you unless you're willing to significantly change the way you work (ie better route planning) and are ready to factor in a lunchtime quick-charge (many electric vans have 30 minute 'superchargers' available at select locations).

Charging points and local infrastructure

According to ZapMap, there are now 39,914 publicly available charging points across 14,776 locations in the UK, with 779 new connectors popping up in the last 30 days (8 April 2021).

You can use free services like Zap Map to check that your working area has good coverage **zap-map.com**

Charging points aren't the only infrastructure to consider. Where's your nearest repair centre that handles EVs? Spend some time talking to them about maintenance costs before you consider replacing any vehicles.

Electric motors are inherently more reliable than a traditional combustion engine due to the fewer moving parts and 'cleaner' internal systems. Plus, you've got no clutch to wear out or exhaust system to rot over time. You might be pleasantly surprised by the maintenance costs of your EV over the long run.

What's the cost?

Working out the cost of operation for EVs is a tricky calculation. The price per mile travelled is a big part, and the regularly quoted average figures are:

- 100 miles worth of charge: £2-4
- 100 miles worth of diesel or petrol: £12-15.

Electric vans can be significantly more expensive than petrol or diesel equivalents. Still, once you factor in some of the government schemes (potentially up to £8,000 back), plus some of the everyday savings, the total cost of ownership is likely to be much less.
axa.co.uk/business-insurance/business-guardian-angel/is-it-time-to-switch-to-an-electric-van/

/continued...

ELECTRIC VEHICLE INCENTIVES

Plug-in car grants 35%

The Plug-in Grant offers up to £2,500 off an eligible vehicle's cost or 35% of the purchase prices (whichever is lowest).

Plug-in grants for vans £8K

Vans with CO_2 emissions of 75g/km or less and travel for 10+ miles on electricity are eligible for a grant of up to £8,000 or 20% of the purchase price (whichever is lower).

Home charging points £350

The Office for Low Emission Vehicles (OLEV) grant pays up to 75% (capped at £350, including VAT) of the charge point and installation cost.

Workplace charging £14K

The Office for Low Emission Vehicles (OLEV) grants allow businesses to install up to 40 sockets providing £350 per socket towards the cost.

Advisory fuel rate £0.04

The advisory electricity rate for fully electric cars is 4 pence per mile, which is significantly less than petrol or diesel equivalents.

Driver savings No tax

For company car drivers and fleet operators choosing an electric car from April 2020, there will be zero tax on Benefit in Kind (BIK) during 2021.

Capital allowance 100%

Because capital allowance is based on CO_2 emissions, buying an electric vehicle means you can 'write down' 100% of the purchase price against corporation tax in year one.

ULEZ, CAZ and congestion charges £0

Electric cars and vans don't pay charges in Ultra-Low Emission and Congestion Zones.

Vehicle Excise Duty (VED) £0

100% electric vehicles are currently exempt from VED.

Source: vwfsfleet.co.uk

ARE WE THERE YET?

COMPARING ELECTRIC VANS

As advertised on UK retail websites for each EV.

Citroën Berlingo Electric and Peugeot Partner Electric
Battery 50kWh
Range 106-170 miles
Carry capacity up to 800kg
Price from £23,030

Charge
80%
30 mins – quick charge port
100%
8-10 hours – normal plug socket

Nissan e-NV200
Battery 40kWh
Range 124-187 miles
Carry capacity up to 705kg
Price from £20,005

Charge
80%
40-60 mins – quick charge port
100%
7.5 hours – 6.6kW wall box
21.5 hours – normal plug socket

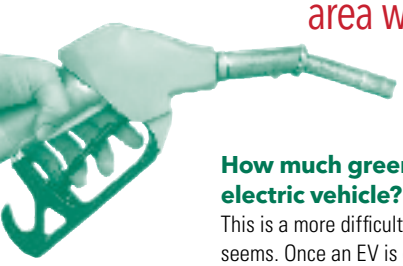
Renault Kangoo ZE
Battery 33kWh
Range 75-143 miles
Carry capacity up to 625kg
Price from £24,480

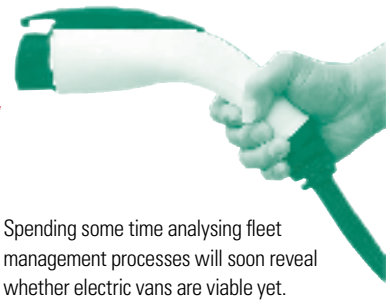
Charge
100%
6 hours – fastest charge points
17 hours – normal plug socket

Volkswagen Abt e-Transporter
Battery 37.3kWh
Range up to 82 miles
Carry capacity up to 996kg
Price from £42,060

Charge
80%
45 mins – quick charge port
100%
5.5 hours – 7.2kW wall box

"Where are my clients? If they're all in the same urban area with plenty of backup charge points around, then an EV could save money in the long run."





How much greener is an electric vehicle?

This is a more difficult question than it first seems. Once an EV is on the road, it has the lowest emissions leading to the cleanest air.

Figures from 2014 EU Study well-to-wheels analysis of future automotive fuels and powertrains in the European context.

	CO_2 emissions gkm^{-1}		
Type	**Propulsion**	**Fuel and delivery**	**Electricity generation**
Petrol	105	20	-
Hybrid	47	10	15
Hydrogen	-	62	-
Electric	-	-	57

However, it gets a bit more complicated when we take into account the creation of a new EV.

In Belgium, the University of Liège concluded that an electric car using a 60kWh battery made in Europe would have to travel some 700,000km before it is "greener than an average petrol car" **blogs.ulg.ac.be/damien-ernst/electric-697612-km-to-become-green-true-or-false/**

But they also said that a fully renewable European grid would reduce the EV's CO_2 lag to just 30,000km.

Other studies suggest a much lower figure, with the Delft University of Technology calculating the required mileage to be a more reasonable 80,000km of driving **pressreader.com/uk/autocar/20190424/283583811798005**

While EVs seem to significantly reduce pollution locally, larger-scale changes in the manufacturing process and electricity generation are needed to maximise the green credentials of EVs.

Should you change your fleet to electric?

As you might expect, there's no definitive yes or no here. It's a deeply complicated decision, and the viability will depend on your business.

Here's my thought process:

- Where are my clients? If they're all in the same urban area with plenty of backup charge points around, then an EV could save money in the long run.
- Do I have to replace my fleet now? Charging technology is continually improving, and the cost of batteries is coming down. What else will I get for my money if I wait a year or two?
- Is buying a diesel or petrol van now a bad investment? Potentially. The world is only going in one direction.
- Is my local infrastructure ready for me to go electric? Have a chat with your local authority, check charging points and service centres.
- What's my average daily mileage now? Would I have to allow time for a midday charge? Spending some time analysing fleet management processes will soon reveal whether electric vans are viable yet.
- Should I try an electric car before I replace my van? Swapping a non-work-vehicle for an EV will help to reduce emissions, and I'll have a better understanding of how EVs might fit into my business.
- If I have numerous vehicles in my fleet, could I try replacing a few with electric vans? I don't have to go all-in on electric, and with some modest changes to how I plan routes, there's a potential to make some meaningful changes.
- What grants could I get for going electric? Being an early adopter has its benefits. There's plenty of government schemes that might help me make the switch.

Electric dream or highway to hell?

Will you be adding any electric vehicles to your fleet anytime soon? Have you already ditched the diesel? Are you a die-hard petrol head? Let us know your thoughts, and we might print them here.

hello@bpca.org.uk

PLASTIC WASTE

IS IT TIME TO THINK OUTSIDE THE BOX?

Sean Taylor, Pestforce Managing Director and owner, asks how pest management professionals can work smarter and greener, to help tackle climate change and cut waste.

> "Part of the problem is that these boxes are not overly expensive, which makes them economically and commercially disposable."

What should we be doing with all these recovered bait boxes? Return, recycle or reuse?

I was shocked this week when one of our Pestforce technicians came back from setting up a new pest control contract for a regional retailer.

The pictures demonstrate the way that many people in the industry have been treating rodent 'bait' boxes as disposable assets.

These boxes – generally made of plastic – are used on properties all over the country, as part of the delivery of pest control services.

And just for the uninitiated, these boxes do not always contain toxic products. That is a whole different debate but professional pest controllers will look to use non-toxic control measures where possible.

In total, we removed over 20 boxes that had been left at the site by at least the previous two contractors.

Simply seeing this picture in the Pestforce head office has got us thinking: surely this situation can be avoided?

Clearly, we are as guilty as most, as we were keen to make a good impression with our new customer by installing new boxes, without thinking of using what was in place.

But at least we safely removed all the older equipment from site – which is more than can be said for the previous contractors.

Part of the problem is that these boxes are not overly expensive, which makes them economically and commercially disposable. Yet they are highly durable and can last years if looked after properly.

Another aspect is that marketing teams have not missed an opportunity, so now every rodent box becomes an advertising board embossed with the company logo. After all, not many companies want to support free advertising for a competitor by leaving a branded box.

Now, just when the world has finally woken up to the issue of plastics, and their impact on the environment and wildlife, the picture shows that our industry really needs to start thinking about how contracts are managed and how we, the service providers, need to come together to help our planet.

I'm not a technician so I may not be the best person to comment. However, on the few occasions that I have been out on the ground with our teams this is not an unusual sight.

I am sure that some 'outside of the box' thinking will find a solution.

What is the answer?

- Should we stop embossing permanent logos on boxes, so that they are more transferable when there is a change in service provider?
- Is it acceptable to use the old contractors' boxes?
- Should outgoing service providers have a corporate responsibility to collect all pest control equipment when the contract is lost?

As always, these things are not always as simple as they sound, but there is huge room for improvement and we will be talking to BPCA to see if the industry can be a bit smarter and greener.

We can all do something to help reduce waste and re-using is just one element that will help cut waste.

Anyway, must dash – I've got some more boxes to count...

pest-force.co.uk

Want a guest post in PPC?

Send us your thoughts and musings and we might feature them on our website or in PPC magazine.

hello@bpca.org.uk

HOW LONG DO PLASTICS HANG AROUND?

According to the World Wildlife Fund, probably longer than your pest control contract!

wwf.org.au/news/blogs/the-lifecycle-of-plastics

Plastic bag	Coffee cup	Plastic straw	Six-pack rings	Water bottle	Coffee pod	Disposable nappy	Plastic toothbrush
20 years	30 years	200 years	400 years	450 years	450 years	500 years	500 years

SUSTAINABILITY CERTIFIED

THE PEST COMPANIES MEETING GLOBAL CHALLENGES WITH SUSTAINABLE SOLUTIONS

Planet Mark is a sustainability certification that supports any type of business wanting to help halt the climate crisis and improve society. PPC asked Planet Mark and its pest control company members to share their vision for how we might all work together for a brighter future.

Businesses globally, across all industries, are recognising the need to take climate action. As small and medium-sized companies represent 90% of companies globally, shifting to sustainable solutions can have a huge impact on the environment.

We are at an exciting time of change where businesses, cities and countries are welcoming a zero-carbon revolution that will result in a cleaner, healthier planet for us and future generations. But to do so, we must all play our part.

Planet Mark is a sustainability certification for businesses, real estate and products, that recognises continuous improvement, encourages action and builds an empowered community of like-minded individuals. Meeting global challenges with sustainable solutions not only positively impacts the planet but also carries significant business benefits.

Adapting to a changing world means that companies are future-proofing their businesses. As well as this, committing to sustainability can increase efficiencies and cut costs, along with attracting and retaining talent.

We work with several pest control companies that are committed to measuring and reducing carbon emissions and are achieving incredible results, ultimately having a positive impact on the planet and society.

> "Meeting global challenges with sustainable solutions not only positively impacts the planet but also carries significant business benefits."

People, planet, profit

BPCA member company Rokill, which has been Planet Mark certified for three years, is committed to reducing its carbon output by a minimum of 5% annually. Rokill Director Chris Turner says, "Sustainability is sometimes described as the triple bottom line - the 3 Ps: People, Planet and Profit. Reducing carbon saves money, helps the planet, wins new business and makes you feel good too."

When starting with Planet Mark, Rokill realised that, like most pest control companies, the biggest impact area was its vehicle fleet. Chris comments, "It accounted for 84.5% of Rokill's total carbon footprint. We created a strategy for replacing vehicles with greener options, including hybrids and PHEVs, and 60% of the current fleet now comprises hybrids."

"We utilise our vehicle telematics system to measure ABC: acceleration, braking and cornering, all of which have an impact on fuel usage. We briefed our teams, ensuring they were engaged, and we produce driver league tables based on ABC, rewarding the best drivers and encouraging efficient driver behaviours.

"Initially, this was not universally popular! However, we persevered, and the outcomes were positive - fuel consumption reduced by around 10%, driver safety was enhanced, and we reduced our carbon footprint."

Fleet of foot

Another BPCA member, Shield Pest Control, is also committed to implementing an electric/hybrid car policy for all management. Managing Director Daniel Steward said, "A new Audi E-Tron 55, fully electric and with one of the lowest carbon footprints of any premium car, joined our fleet in November 2019. Shield is

Read more about Shield Pest Control's sustainability journey on page 36.

Rentokil's Lumnia LED range reportedly catches flies faster than other LED ILTs (insect light traps), has 80% greater reach than traditional fly traps, can offer up to 70% energy savings and has been certified to have 62% lower carbon emissions by Planet Mark. Tests for Lumnia range and competing products were carried out under the same conditions.

ILLUMINATING RESPONSIBLY

Rokill targeted energy, switching to renewable sources in the office. Chris said, "Fluorescent tubes are recycled through the Recolite scheme, with 14,000 tubes recycled annually."

"Team engagement is essential, and pest control generates a significant amount of plastic waste. When we first started our journey, rodenticide buckets couldn't be recycled. One of our team took up the challenge and found a company that would recycle, so we ensured that these no longer went to landfill."

Rokill MD Alec McQuin receiving Planet Mark from Planet Mark CEO Steve Malkin.

Engagement of not only the team but also the local community was important for Shield Pest Control. Daniel Steward says, "We're very engaged with the local community and are proud to be an active partner within the local Street Trees Project, with several new tree plantings sponsored outside local schools and our building."

Shield Pest Control also switched to LED lights throughout its building and recycled old mobile phones and computers back into the local community.

By signing up for certifications like Planet Mark, Rentokil Initial has been able to measure its carbon emissions reductions and has identified an 8.1% reduction in emissions per £m revenue in 2020. The company plans to go further, with a target of net-zero carbon emissions by the end of 2040.

Daniel Steward at Shield Pest Control offers this tip for pest control businesses looking to start their sustainability journey: "Encompassing sustainability gains in everyday business does not necessarily require seismic shifts in your business model."

As demonstrated by businesses like these, a commitment to sustainability and measuring your carbon footprint is a good place to start. Collectively, we can make a world of difference.

> "Ultimately, everyone can take action, whether at home or work, which reduces their environmental footprint, and often will save money too."

dedicated to its vehicular fleet, ensuring all vehicles are environmentally friendly and of Euro 6 status."

Shield Pest Control remains committed to the development of its central London team of footmen who utilise public transport and walk to all Central London client sites.

"We plan to expand this team to ensure that all routine pest control operations are delivered with an ever-decreasing environmental footprint."

Sustainable product usage

For another of our mutual members, Rentokil Initial, an innovation pipeline full of more sustainable, non-toxic products, was created.

Operations Director at Rentokil Pest Control Dave Hall said, "This includes the Lumnia LED fly control range, which received Planet Mark accreditation in 2019 for its 62% reduction in carbon emissions. Also, we have PestConnect, which was recently installed across the estate of a large UK supermarket and has resulted in a significant reduction of rodenticide being used."

Dave continues, "When it comes to sustainability, it's not just what you do, but how you do it. Driving from one site to another in the most efficient way will reduce your carbon emissions. Moving to digital reporting and invoicing will save paper. And correctly disposing of the packaging for recycling will also make a big difference.

"Ultimately, everyone can take action, whether at home or work, which reduces their environmental footprint, and often will save money too."

Interested in Planet Mark certification?

Planet Mark's Business Certification recognises the commitment to continuous improvement, measuring and reducing a business's carbon emissions, energy and water consumption, travel and waste.
planetmark.com

MEET THE MEMBER

SHIELDING THE PLANET

In this month's Meet the Member article, BPCA's Comms Officer Kat Shaw spoke to Nicholas Illidge from Shield Pest Control, about membership of Planet Mark, the sustainability certification.

PPC When did Shield decide to start working on environmental and sustainability goals?
SPC Shield has always kept a close eye on its environmental footprint but with the introduction of sustainability support and measurement programmes, we are now able to translate our efforts and progress into a structured approach to reduce our carbon footprint.

PPC Was there a watershed moment when you realised you could be doing more as a business?
SPC Not one moment as such, but we've been continuously expanding on all our efforts.

We've increased the range of footmen within London, reducing our fuel consumption, and we've also started to convert our vehicle fleet to electric models, giving us further sustainability gains.

These environmental improvements to our core business processes have been seamlessly integrated into our customer delivery models.

The changes needed at our headquarters were less obvious.

By getting feedback from our teams we've made significant changes in paper consumption, recycling efforts and have converted all lighting to LED, cutting energy usage by over 25%.

Within the community we recycle all our used mobile phones, laptops, printers and desktop computers to local schools and charities. Our recent efforts have extended to working with a local Street Trees charity to fund the planting of new trees outside schools and community areas.

PPC How do you measure how well you are doing?
SPC At Shield we follow a set of closely defined measures, which determine our being awarded sustainability accreditations.

We're committed to reducing our carbon emissions yearly, so in 2020 we were delighted to achieve a 36.1% absolute carbon reduction (47.1% carbon reduction per employee).

We're also governed closely in all major commercial contracts, to the strictest environmental standards.

> "The industry has evolved in recent years to become self-policing on supplier sustainability efforts. This is something we welcome at Shield, as it helps double the industry's effort in achieving a cleaner planet."

The industry has evolved in recent years to become self-policing on supplier sustainability efforts. This is something we welcome at Shield, as it helps double the industry's effort in achieving a cleaner planet.

PPC Who are your eco warriors in the business? Does every member of the team get involved?
SPC We have several staff that are hugely committed to improving our sustainability efforts but our leader in this space is our Contracts Manager, Alison Bennett, who has tirelessly run our programmes of improvement and applications for accreditations.

Alison looks at every process through the lens of sustainability, and helps all new starters to understand and embrace our environmental policies.

PPC What are the benefits to being a member of Planet Mark?
SPC We benefit not just from Planet Mark accreditation and the value it brings to our brand, but also the useful tools and support collateral which help us measure performance. Planet Mark is pragmatic and welcomes the small changes an SME can achieve, but provides the ambition and structure to meet environmental goals.

PPC You're also members of the Royal Warrant Holders Association. Can you tell us what this means?
SPC Royal Warrants of Appointment are marks of recognition to those who supply goods or services to the Royal Households.

As a Royal Warrant Holder for HM The Queen, we are required to demonstrate that we have an appropriate environmental and sustainability policy and action plan.

The Royal Warrant affords Shield a level of accreditation which is unique within the UK and is a great source of pride for everyone working here.

PPC Do you have any tips for a pest control company that wants to reduce its carbon footprint?
SPC The biggest long-term wins are gained through reducing fuel consumption, by investing in a greater number of greener vehicles and increasing technicians in your on-foot team. As well as the obvious health benefits, the reduction in fuel emissions goes a long way to reducing your carbon footprint.

PPC How do you feel BPCA membership helps your business?
SPC Alongside all the support resources, BPCA membership is crucial for our inclusion in major commercial contracts and gives us a 'ticket to the game'. Without it we simply wouldn't be on the same playing field. We're proud to be a long-standing BPCA member.

Chat with Kat
Interested in sharing your passion with the pest management community? Set up an interview with Kat today, and you could appear here in the next issue.
hello@bpca.org.uk

'LITTLE AND OFTEN' SUSTAINABILITY

Lorraine Norton, BPCA's Operations Manager, looks at the steps a small, office-based business can take to reduce its carbon footprint.

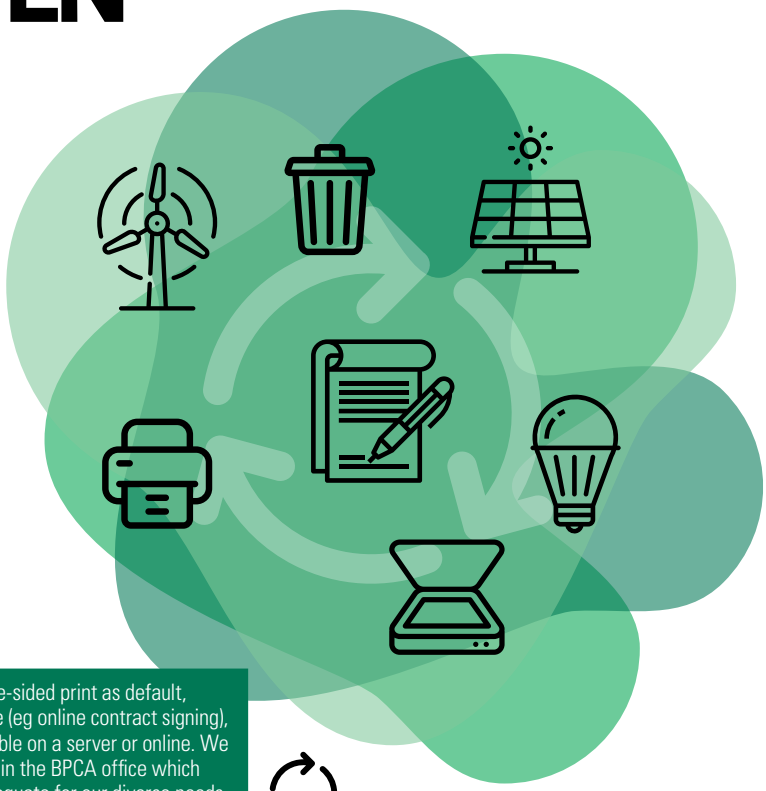
Terms such as 'business sustainability' and 'carbon neutral' are well known but often instil fear in a business manager. They can feel like they're going to require more time and money than they're worth (especially with all the challenges we've had to face with Covid). They're on a 'to-do' list' somewhere. There's probably even an environmental policy kicking around in a file, but that's just not a priority now… and some businesses feel they're just 'too small' to benefit.

That's all completely understandable and something I can relate to. BPCA is a small business itself, but if we reflect on how we've changed over the last year, we've been forced to do more to reduce our carbon footprint than any conscious effort previously – and we've coped with grace, style and ease. Covid has forced us to break some habits that have been long-standing. As a Staff team, we'd always been conscious of the environment and within the traditional office environment had adopted good practices. It's the 'little and often' that works for us.

How can a small business reduce its carbon footprint? In this article, I look at some quick wins and easy-to-implement stuff that can make a real long term positive impact on: the environment, your carbon footprint, your costs and your staff satisfaction.

REDUCE, REUSE, RECYCLE

This is the gateway to building a greener, more sustainable office.



Reduce

PAPER USE Set double-sided print as default, reduce print and digitise (eg online contract signing), make documents available on a server or online. We have one printer/copier in the BPCA office which has been more than adequate for our diverse needs for the past 10 years. Good procedures and a decent support contract have eliminated downtime due to equipment failure.

ENERGY CONSUMPTION Maximise natural light in workplaces, turn it off (lights, computers, automate power downs of unused equipment) and turn it down (air conditioning).

Replace light bulbs with low-energy ones; grants can be available to upgrade to LED equipment or you can install motion-activated lighting.

Switch to sustainable energy sources.

Invest in energy efficient, low/zero-carbon technology. Enhanced capital allowances are available **gov.uk/capital-allowances/first-year-allowances**

Reuse

Source recycled equipment for the office – paper, pens, notebooks, ink cartridges, even secondhand or upcycled furniture.

Donate any redundant or surplus equipment and supplies to a good cause.

Recycle

Remove under-desk bins to encourage staff to use recycling bins instead (we've done this for years at BPCA with great success).

Make clear and easy-to-use recycling areas.

Know what you can throw – there are lots of resources at **recyclenow.com**

Make being 'eco-friendly' fun!

Offer rewards and incentives to help embed change; internal healthy competition isn't a bad thing.

Have fundraising activities with proceeds going to environmental causes.

Charity days give staff the opportunity to participate in environmental events – such as beach cleans and woodland maintenance.

If your business hasn't been focused on being environmentally-friendly in the past, don't worry – it's never too late to start. Do your part today and go green.

Improve the commute

Continue to embrace remote working – in 2014, the Carbon Trust suggested that increasing the number of people working from home in the UK could save more than three million tonnes of carbon a year **carbontrust.com**

Offer a cycle-to-work scheme **assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/845725/cycle-to-work-guidance.pdf**

Choose more fuel-efficient vehicles such as alternative fuel or electric vehicles (EVs). Government incentives are available to subsidise the cost of new low-emissions vehicles along with subsidies to install charge points **gov.uk/plug-in-car-van-grants**

Encourage carpooling and public transport options (when it's safe to do so #begonecovid!)

Keep staff informed and engaged

Lead by example: foster a green culture explaining changes and reasoning, and make it as easy as possible for employees to do the right thing.

Use your internal communications that staff actually pay attention to - keep the messages short and sweet (they're busy!), and update regularly.

Encourage staff to take part and involve EVERYONE if you truly want a greener, leaner business.

OPINION

TAKING THE LEAD?

THE FUTURE OF LEAD AMMUNITIONS FOR PEST MANAGEMENT

Lead as a form of ammunition in any form of weapon from a shotgun to a full bore rifle is continuing to fall out of favour; in many cases it is now illegal in the UK and indeed Europe. Regular contributor Dave Archer, from DKA Pest Control, asks: "Is it time to think about surrendering our lead?"

"Game harvested with non-lead shot will not come with a Food Standards Agency (FSA) warning, meaning it can be enjoyed and can be eaten more frequently by everyone."

There are many reasons for the demise of lead ammunition. Initially, in the early 1990s, it was recognised that lead shot was harmful when ingested by waterfowl.

Since November 1999, many areas have seen a ban on the use of lead ammunition. It's the responsibility of the shooter to ensure that only non-lead shot is used wherever lead shot is banned under those regulations.

Lead in the food chain

Not only does lead pose a danger to the wildlife that ingests it, but it also poses a danger to humans who consume animals and birds shot with lead pellets or bullets.

For pest control purposes, the shooting of wood pigeons using lead shot is still legal. However, it's worth remembering that UK wildfowlers have used non-lead cartridges for more than twenty years, and that British pigeon shooters have increasingly used steel – as the price paid per bird taken with non-lead shot has increased.

The development of biodegradable wads for steel shot is a real game changer for the future use of steel cartridges. Game harvested with non-lead shot will not come with a Food Standards Agency (FSA) warning, meaning it can be enjoyed and can be eaten more frequently by everyone.

Orange is the new grey?

For deer managers, the use of lead bullets to cull deer is still perfectly legal, but it is becoming increasingly problematic insofar as game dealers cannot allow deer shot with lead to enter the human food chain.

As a projectile, lead has the capacity to fragment. Therefore, the likelihood of ingesting lead particles, and subsequent harm to the consumer, cannot be overlooked. As a consequence, the commercial price offered for deer shot with lead as opposed to copper is now falling.

Copper doesn't normally fragment on impact; so there are no metal fragments in the impact area, as opposed to lead, which is also toxic if ingested.

Copper bullets as a viable alternative to lead are now widely available but are considerably more expensive. However, this is largely outweighed by the fact that, as with non-lead shotgun cartridges, game dealers will pay a higher premium for deer shot with copper bullets.

As far as regulatory bodies and shooting organisations are concerned, the European Chemicals Agency (ECHA) has announced proposals for a near-total ban on the sale and use of lead ammunition for airguns, shotguns and rifles.

The British Association for Shooting and Conservation (BASC) is warning that, despite Brexit, moves to restrict lead ammunition in the EU could still impact shooting in the UK. This follows the publication recently of EU regulations that will ban lead shot in and around wetlands from February 2023 onwards.

What about airguns?

The community currently unaffected by any such legislative impact are air gunners. However, as practical pest control often sees the use of air rifles, and in light of the above statement from the ECHA, it is in the interest of everyone involved in the use of air rifles, both from a personal or vocational related use, to ensure their actions are legal. Alternatives to lead pellets are now freely available.

If you use air rifles, either recreationally or professionally, I suggest it is now only a matter of time before alternative materials such as tin or steel pellets will become mandatory for these weapons as well.

It may well be that other pellet designs in alternative metals such as slug or hybrid slug may even suit your needs better.

Of course, when using alternatives, as per safe handling and good practice, always ensure you re-zero your air rifle on a range or in a safe area with a suitable background before live use, as the new materials may well react differently to what you are used to.

The pest control world is changing with increased speed and, as consummate professionals, we must all do our absolute utmost to remain informed, competent and legal.

From left: the old lead and new steel shotgun cartridges.

Your comments

Will you be switching from lead munitions to something less hazardous? Send us your thoughts and we might print them here.
hello@bpca.org.uk

"As a projectile, lead has the capacity to fragment. Therefore, the likelihood of ingesting lead particles, and subsequent harm to the consumer, cannot be overlooked."

STAFF LEAVING BECAUSE OF YOU? MANAGING PEST CONTROL TEAMS

'Most people don't quit their jobs; they quit their managers' – why would that be? Often it's because the manager has no training on how to manage. There's a misplaced belief that just because you were good 'on the tools,' you'll also be good at managing. BPCA Chief Executive Ian Andrew shares his insights on management training.

Becoming a manager is an entirely new skill set, yet it's an area that many companies fail to invest in. What happens is that a new manager will likely manage based on the experience they've had from being managed. If they're lucky, they'll have had a positive experience of that.

Management culture

Managing people can be a challenge. It requires an investment in time and resources to do it well. Think about it from your experience - when you were on the frontline, did you feel part of a team? Were your suggestions, concerns and challenges acknowledged and, when possible, acted on? Did you feel valued?

One manager with poor people skills can do significant damage to the culture and effectiveness of a business. Managers need to know how best to ensure their team's skills and passion are harnessed.

The skills that make an employee a great technician are entirely different from those required for management.

Retaining talent

There's more to achieving staff retention than how people are managed. However, it's been quoted that up to 85% of staff leavers go because of their manager.

Staff want to feel appreciated. They need to feel they have progression opportunities, and that can be difficult in a small business. They need to be well remunerated and well rewarded, and that isn't just about the money.

Not everyone wants to progress into management, and you need to show a development pathway for staff who wish to remain 'on the tools'. Making training and development opportunities and career pathways available will help the team grow up in your business rather than searching elsewhere.

Listening to your team will help you understand the direction each individual wants to take: how to add to or change their role, take on more or different responsibility, lead new projects or try new innovative ways of working.

So much of good managing is about good communication. Managers have to find the right balance between asking and telling – we have one mouth and two ears for a reason!

Management toolkit

Staff need regular feedback from their manager to understand what is going well and what isn't. They need to share in celebrations, and feel part of what the business is and where it's heading.

It can be more challenging doing this with a remote team, but regular touchpoints between managers and their teams must be scheduled. Regular feedback will also give you more warning when people are feeling dissatisfied or disengaged.

Managers need to help staff understand the business's goals and how their department or team fits into achieving this. Having a solid set of corporate values, a clear mission, and specific KPIs (for the company, departments, teams and individuals) will help them understand how their individual energy and effort contributes to the business's goals.

As employers, we have a legal duty to care for the health and wellbeing of our employees. Understanding what is causing employees to struggle or to help them manage the work and home life balance can also help when trying to retain staff. Little things that show the importance of work-life balance go a long way to help staff feel that they're not just a number.

As a sector, we often struggle to find and to keep good staff. If you find you have regular staff churn, then consider how you and your managers are performing!

STEPS TO PEST MANAGEMENT LEADERSHIP – ONLINE CLASSROOM COURSE

BPCA recognises the development needs of new managers. In September 2021, we will pilot a new two-day programme aimed at managers to help give them the tools, techniques and behaviours necessary to be a high performing manager leading a high performing team.

STEPS TO PEST MANAGEMENT LEADERSHIP

When?	**16 and 21 September 2021 9.30am-4.00pm**
Level	**Advanced**
Delivery	**Online/virtual classroom only No additional study**
CPD	**11 BPCA Registered points (5.5 per day)**

DAY ONE

Personal effectiveness – time is precious, use it wisely

- How to effectively and efficiently manage time, priorities, tasks, team and individuals based on business focus and needs
- Communication – verbal and non-verbal: speaking with purpose; inspiring others by listening with intent; hearing potential in others; translating this into action within the team.

DAY TWO

Self and relationships management

- Assess your leadership style and understand the value of adapting your style to motivate and inspire the team creating a shared vision, purpose and direction
- Understanding how to assess and manage your team members' current competencies, ensuring you are providing stretching development opportunities – this includes one-to-ones, feedback conversations, performance coaching and mentoring for over and underperformance.

The workshops are designed to stimulate ideas and provide practical skills development to integrate into working practices, giving inspiration to new managers to encourage their team and individuals to achieve their full potential.

More info or to book

bpca.org.uk/steps
01332 225 113
training@bpca.org.uk

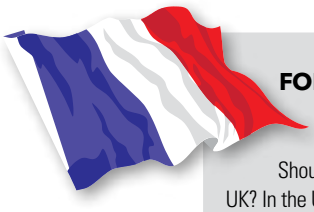
OPINION

VIVE LA FRANCE?

OBSERVATIONS ON PEST CONTROL LICENSING IN FRANCE

Written by Robert Moon, director of Applicateur3D, a British pest management company operating in France **applicateur3d.com**

In 2010, having already lived in France for four years, I found myself in need of a pest controller. I quickly noticed a gap in the market - no Brits were qualified to trade legally as pest controllers anywhere in France.



With the guidance and mentoring from a friend in the UK, I was able to find the relevant training centres.

Over several weeks, I took several courses and exams. It transpired that I was the first, and still over ten years later, the only Brit in France with a French diploma in Pest Control, Certibiocides.

This is valid for five years, whereupon another entire training course must be taken.

For the protection of plant matter (crops etc), you must have a certificate Cert Phytosanitaire, but this does not qualify you as an Applicateur3D.

The French system

Any person in France who wishes to run a business must be registered. If you have never been self-employed before, you must do a week-long training course just to get your trading (Siret) number. Your Siret number must be written on websites, letterheads, invoices, flyers and even business cards. You also need to register your 'Activité Principale de l'Entreprise' (main business activity along with other aspects of your activity).

People politely ask each other in business about their 'métier' vocation. The French respect this, as it shows you have received formal training. You are an artisan, a master of your trade. There is a diploma for being a window cleaner, a taxi driver, a chimney sweep. Pest control in French is Dératisation, Désinsectisation, Désinfection (3D), the generic term being an Applicateur3D.

To purchase any products from distributors, sell or gain financially as an Applicateur3D, it is obligatory to hold a Certibiocides diploma and have a Siret number. All products must be purchased and authorised for use in France. All labels, data and reports must be in French.

An artisan's attitude

A window cleaner will clean windows. A roofer will 'roof'. If they were to come across a wasp nest, they would walk off-site and demand that a qualified pest controller treats the nest before returning.

Is it a restriction of trade? Others deem France as a nation where the entrepreneur is frowned upon. It's not true. They just don't appreciate chancers earning a fast buck in the latest fad without formal training.

Being a pest controller carries enormous responsibilities. You're often using products that can kill – not just target species, but inappropriate use can harm wildlife, pets, humans, and the environment. Buying rodenticides or insecticides from a supermarket does not make one a qualified pest controller.

Having a diploma (your licence to practice) proves that you've received training and have a level of understanding of the cause and effect of your actions. By being licenced, you're accountable. After all, a licence can be revoked.

Your role in French society

The actions of one rogue individual can ruin the reputation of an industry. The penalties in France are severe for transgressors. The French like nothing more than reporting people to the authorities (especially Brits!). There are no exceptions, no warnings, no excuses.

Thinking about moving to France and becoming a pest controller? UK qualifications for pest control are not valid in France. They've never been recognised; it's not a 'Brexit-thing'.

These are the personal observations from an Englishman trading as a pest controller in France. Approved, legal, insured, respected... and licenced.

Robert's skills are regularly called upon to help protect against Asian hornets.

FOLLOW UP QUESTIONS

Should we be more French this side of the channel?

Should pest controllers be licenced in the UK? In the UK to be a gas engineer, a dog breeder, and to do ear piercing, you need to be licenced. Inappropriate pest control can harm the whole sector and, at worst, can kill. So in my opinion, YES!

What about the DIY-ers? Does the licensing stop amateur pest management?

Regarding DIY, the shops will never stop supplying pesticide products to the public. There's too much money involved.

DIYers will still DIY, but they usually fail (mainly because they don't read the instructions!).

It is illegal to use pesticides anywhere except on your property or land, even as a freebie favour for your neighbour, unless you have a licence. It is illegal for me to sell any professional pesticides to anybody or business without a licence.

Want to be French? The editor speaks...

Should the UK be licenced in a similar way to the French system? Would you be willing to pay to requalify every five years to stamp out the 'chancers' (even if it didn't stop the DIY-ers)? Would you be ready to upgrade your Level 2 qualification to a more involved diploma?

Earlier this year, BPCA reported on our 2018-2020 strategy. One task was to explore a viable licensing structure for the professional pest management sector.

We explored the setting up of a new professional body for pest professionals. It was decided that the sector was not ready for this mainly because the industry already has two trade associations, and the existing qualification requirements are too low for a professional body.

BPCA hasn't given up on this objective and instead is committed to developing individual recognition and a training framework fit for the future - but it's a long road ahead.

Agree with Robert?

Would you like to see licensing in the UK? Wish we were all a bit more French? Send us your views on licensing, and we might print them here. **hello@bpca.org.uk**

BPCA MEMBER AWARD WINNERS ANNOUNCED AT 2021 AGM

The first-ever BPCA Member Awards were held at the digital BPCA AGM on 26 March. The Awards celebrate positive contributions made by members to the Association and the wider pest management sector. A number of awards were presented to winners of six different categories, as well as some highly commended entries.

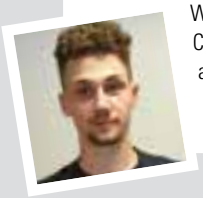
Charles Keeble Award

For many years, the Charles Keeble Award has been given to whoever achieves the highest mark in the highly esteemed Advanced Technician in Pest Management exam.

In response to the restrictions put in place around Covid-19, 2020 saw this evolve into the online Certificated Advanced Technician.

As a result, BPCA decided to recognise two individuals this year: the highest scorers for each of these assessments.

Winner for the highest score in the Advanced Technician in Pest Management assessment:
Vicky Caulfield
(Precision Pest Management)



Winner for the highest score in the Certificated Advanced Technician assessment:
Callum Woolgrove
(Terminix)

Commitment to Training Award

This award is designed to recognise a BPCA member who has demonstrated a commitment to upskilling their employees through BPCA.

The winner of this award has demonstrated a commitment to training and continued professional development through BPCA.

"The company has nurtured an excellent cultural attitude to CPD with their technicians taking responsibility for their own development, which has been reflected in their BPCA Registered achievements across the board in 2020."

Winner:
Pest Solutions

Highly Commended:
Healthguard Ltd

Outstanding CPD Award

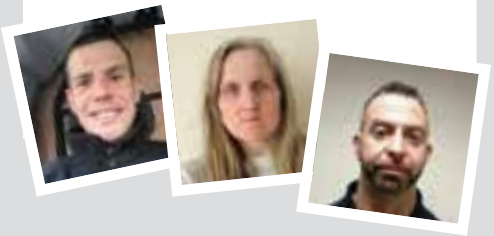
It would have been easy to disregard CPD for 2020 with so many events and training courses cancelled.

However, BPCA pulled out all the stops to make sure pest management professionals had plenty of opportunities to achieve CPD points through a wealth of online classroom training, online learning courses and digital events, on top of the unstructured CPD that BPCA Registered technicians gain in the field.

This award is designed to acknowledge an outstanding portfolio of CPD activities from an individual on BPCA Registered and highlight the importance of CPD in our industry.

Winner:
Tony Adams
(First Call Pest Management)

Highly Commended:
Kevin Pugh (Pest Solutions)
Michelle Pope (MP Environmental)
Philip Schendel (Schendels Independent Environmental Solutions)



Honouree Editor Award

This award recognises the work that goes into building the content for PPC magazine and the significant contributions made by external writers, without which the magazine would not be possible.

Winner:
Chris Cagienard
(Pest Solutions)

Special Contribution Award

As well as the Staff team, BPCA is made up of the Executive Board, four committees and several special interest groups, all run by volunteers within the membership.

This award is designed to recognise a significant and outstanding contribution to the Association in 2020, exceeding what might normally be expected from members.

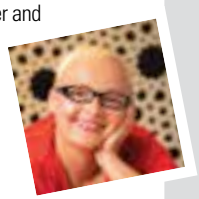
Winner:
Martin-Rose King
(Bounty Pest Control; Servicing Committee chair; Executive Board member; Executive Board Professionalism Working Group member; Manufacturers and Distributors Committee temporary chair; Professional Standards Committee member; PSC Code of Conduct Working Group member; Code of Best Practice review contributor; CEPA case study contributor; BPCA Apprenticeships Employers Development Group chair)

BPCA Resilience Award

The pandemic has changed the way we live and work over the last year. Nobody could predict what would happen next, which is why BPCA couldn't do these awards without looking at how members have adapted brilliantly and come out stronger than ever.

One nomination came out on top and the winner for this award has shown great resilience in the way that the business adapted to ensure their clients and staff were safe and happy.

Not only did this company diversify its services but they ensured this was done ethically. They emerged from 2020 bigger, stronger and more confident with plans still in place to grow further.



Winner:
Lady Bug Pest Control

Highly commended:
London Network for Pest Solutions
Lancaster City Council Unbugged

Learn , share and connect with your virtual and local pest events.

FREE EVENTS AND WEBINARS IN 2021

CPD points are available for all events. Physical events are subject to change or cancellation depending on Covid-19 restrictions.

Event type	Name	When?	Information
Webinar	PRINCIPLES OF MOTH CONTROL FOR PEST PROFESSIONALS	12 May 2021, 12:30pm	bpca.org.uk/webinars
Virtual forum	WALES	20 May 2021, 8:15am	Sponsored by Lodi UK bpca.org.uk/forum
Webinar	ESSENTIAL CUSTOMER SERVICE SKILLS FOR PEST PROFESSIONALS	23 June 2021, 12:30pm	bpca.org.uk/webinars
Virtual forum	DIGITAL 9	7 July 2021, 9:30am	Sponsored by Lodi UK bpca.org.uk/forum
Webinar	UNDERSTANDING PESTS IN FOOD BUSINESSES	21 July 2021, 12:30pm	bpca.org.uk/webinars
Webinar	LIVE CAPTURE TRAPPING IN PEST CONTROL	18 August 2021, 12:30pm	bpca.org.uk/webinars
Local forum	MIDLANDS	8 September 2021, 8:15am	Sponsored by Killgerm bpca.org.uk/forum
Webinar	PRINCIPLES OF CLUSTER FLY PEST CONTROL	22 September 2021, 12:30pm	bpca.org.uk/webinars
Virtual forum	DIGITAL 10	28 September 2021, 9:30am	Sponsored by Bayer bpca.org.uk/forum
Local forum	SOUTH EAST	5 October 2021, 8:15am	Sponsored by BASF bpca.org.uk/forum
Webinar	USE OF RIFLES IN PEST CONTROL	13 October 2021, 12:30pm	bpca.org.uk/webinars
Local forum	NORTHERN IRELAND	21 October 2021, 8:15am	Sponsored by Bell Labs bpca.org.uk/forum
Virtual forum	DIGITAL 11	3 November 2021, 9:30am	Sponsored by BASF bpca.org.uk/forum
Webinar	GUIDANCE ON CRRU STEWARDSHIP FOR RODENTICIDE USE	24 November 2021, 12:30pm	bpca.org.uk/webinars
Local forum	NORTH	7 December 2021, 8:15am	Sponsored by Deadline bpca.org.uk/forum
Webinar	PRINCIPLES OF WASTE MANAGEMENT IN PEST CONTROL	15 December 2021, 12:30pm	bpca.org.uk/webinars

The best pest events

For the latest information on all of our free events, visit **bpca.org.uk/events**

WATCH ONLINE EVENTS YOU MAY HAVE MISSED

BPCA webinars and Forums are available to watch back for free on our website. Plus, now we have loads of PestExtra sessions for you to catch up on **bpca.org.uk/cpd-videos**

- Trade marks for pest management companies – what you need to know
- Managing bees in pest control environments
- Syngenta providing the right support for PCOs
- Cluster and other small fly control
- Pest surveying techniques and customer communication
- Regulation of Biocides in UK - an update from the Health and Safety Executive (HSE)
- Understanding biological hazards of professional pest control
- A Modern Rat's Tale: Dutch Experiences With Rodenticide Reduction
- Amazing indoxacarb technology – how does it work?
- An introduction to CALM
- An introduction to the BPCA Manufacturers and Distributors Committee
- An introduction to the BPCA Outreach and Communications Committee
- An introduction to the BPCA Servicing Committee
- Baiting strategies, assessments, techniques and efficacy
- Bell Sensing Technologies – iQ products demonstration
- Bird mites – environmentally tricky, socially misunderstood, technically still challenging
- Competitive clout with Service Tracker
- Designing for IPM and stewardship
- Diseases transmitted by rodents and their parasites
- Evolution of bait boxes
- Five years of rodenticide stewardship: what have we achieved
- Futura vlog – digital and sustainable pest control is the ~~future~~ present
- How rodent behaviour influences a baiting plan
- How to leverage value from a VLINK system
- How to solve your cockroach problems quickly and cost-effectively
- Humane rodent control products
- Introducing Selontra® – our latest innovation, Cholecalciferol rodent bait
- Keeping customers and staff safe in a pandemic
- Mythbusters: common pest management theories fact-checked
- Novel mosquito control techniques to combat mosquito-borne infections
- Pest trending: using data to control pests
- Remote rodent monitoring and trapping – TrapMe
- Sixty years of anticoagulant resistance in the UK
- Smart pest management – why digital pest management is the future
- Terms, conditions and contracts for pest management companies
- The bed bugs tell us how: early treatment and monitoring
- The latest in pest exclusion technology
- UK rodenticide – which bait to use, and when?
- Understanding pulse baiting: save time, money and bait!
- What is the right strategy for ant colony control this spring
- Pest management Codes of Best Practice explained

...and more!

TRAINING CALENDAR

Courses and exams

Course/exam	From (£)	Exam	Start date	Location
Level 2 Award in Pest Management (residential)	1010	✓	15-20/08/2021 17-22/10/2021 05-10/12/2021	Stafford
Fundamentals of Pest Biology and Behaviour	95		19/05/2021 13/07/2021 11/10/2021 09/12/2021	Online classroom
Principles of Pest Identification	95		12/05/2021 21/07/2021 15/09/2021	Online classroom
Bed Bug Control NOW ONLINE	95		25/06/2021 29/09/2021 29/11/2021	Online classroom
NEW **Flies and their Control**	95		14/06/2021 04/10/2021 13/12/2021	Online classroom
Fly Catch Analysis and Identification	95		16/06/2021 21/10/2021	Online classroom
What's in that Formulation?	95		24/06/2021 07/09/2021 18/11/2021	Online classroom
Certificate in Bird Management NOW ONLINE	95	✓	27/05/2021 22/07/2021 14/10/2021 02/12/2021	Online classroom
Stored Product Insects (SPIs) in Food Factory Environments	95		25/05/2021 15/07/2021 02/09/2021 25/11/2021	Online classroom
NEW **Introduction to Wildlife Management**	95		08/07/2021 01/09/2021 30/11/2021	Online classroom
Resistance isn't futile	95		06/07/2021 22/09/2021 01/12/2021	Online classroom
Waste Management for Pest Control Companies	95		17/06/2021 22/11/2021	Online classroom
Becoming a Field Biologist or Technical Inspector	95		26/07/2021 15/11/2021	Online classroom
Starting and managing your own pest management business	95		05/08/2021	Online classroom

Exams only

Exam	From (£)	Start date	Location
RSPH Level 2 Award in Pest Management	155	11/06/2021 20/08/2021 22/10/2021	Stafford Stafford Stafford
Technical Inspector Exam	155	11/06/2021 22/10/2021	Stafford Stafford
RSPH Level 3 Award in the Safe Use of Fumigants for the Managament of Invertebrate Pests	305	11/06/2021 20/08/2021 22/10/2021	Stafford Stafford Stafford
NEW **Certificated Advanced Technican (CAT) in Pest Management**	294	Book anytime	NOW ONLINE

Online learning

The flexible approach to pest control training, learn at your own pace at times to suit you **bpca.org.uk/online-learning**

	From (£)
Individual GPC Level 2 Award modules – Introduction to Pest Management: Health, Safety and Legislation; Invertebrates; Vertebrates	110
Full Level 2 Award in Pest Management – online course	300
Using Rodenticides Safely – online course and exam	75
Foundation Certificate in Pest Management	55
Completing Risk Assessments PRICE DROP	20
NEW **Working at Height**	20
NEW **Asbestos Awareness**	20
NEW **Manual Handling**	20
NEW **Ladder Safety**	20

Enquiries and bookings

training@bpca.org.uk
01332 225 113
bpca.org.uk/training

Bulk booking discounts

We now offer discounts on bulk bookings for our Level 2 Award in Pest Management course, for both members and non-members: 0-2 licences – standard price; 3-9 licences – 20% discount; 10+ licences – 40% discount. Exam costs remain the same. Contact the training team to find out more.

Terms and conditions

All costs are members only and exclude VAT.

Venue details are provisional and may change – please check the BPCA website before booking.

BPCA reserves the right to cancel a programme if insufficient bookings have been received.

Delegates will be offered an alternative date or a full refund of the programme fee if a programme is cancelled. BPCA will not be liable for any costs incurred by the delegates.

NEW!

Protecta® EVO® TUNNEL™

VERSATILE & ECONOMICAL TRAP PROTECTION

- Tamper-resistant trap cover with EVO® key
- Holds 2 T-REX® traps in each EVO® TUNNEL™
- Economical way to protect traps and non-targets at accounts
- Can be secured horizontally or vertically, such as on fences or pipes, via cable ties
- Low, long profile for discreet placement
- The T-REX® rat trap, when used with EVO® TUNNEL™, meets NAWAC animal welfare standards
- Indoor or outdoor use
- EVO® TUNNEL™ can also be used for:
  - Mini-Rex™ mouse traps
  - Trapper® Max glue boards
  - Trapper® Mouse glue trays

PRODUCT	CODE
EVO Protecta EVO Trap Tunnel 6/case	RT2020

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